

SMOKE SIGNALS

For Radio Amateurs • By Radio Amateurs

Published Monthly Since 1969 • Our 27th Year
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New FCC RF safety standards include Amateur Radio

New FCC RF safety standards that become effective January 1, 1997, could affect the way some hams operate. As a result of a Report and Order adopted by the FCC on August 1 (ET Docket No. 93-62, Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation), Part 97 will require hams running more than 50 W PEP to conduct routine RF radiation evaluations to determine if RF fields are sufficient to cause human exposure to RF radiation levels in excess of those specified. "Measurements made during a Commission/EPA study of several typical amateur stations in 1990 indicated that there may be some situations where excessive exposures could occur," the FCC said in ending the blanket exemption for Amateur Radio. Although all amateur operation must comply with the new regulations for Maximum Permissible Exposure (MPE), amateur operation at power levels of less than 50W PEP is "categorically excluded" from the requirement to perform a "routine evaluation" of station operation before operating. Where routine evaluation indicates that the RF radiation could be in excess of the limits, "the licensee must take action to prevent such an occurrence," the Report and Order stated. The FCC said this could mean altering operating patterns, relocating the antenna, revising the station's technical parameters -- such as frequency, power or emission type -- or "combinations of these and other remedies." Although the new exposure criteria will apply to portable and mobile devices in general, at this time routine evaluation for compliance will not be required of devices such as "push-to-talk" portable radios and "push-to-talk" mobile radios used by Amateur Radio operators. These transmitting devices will be excluded from routine evaluation.

The FCC encouraged the amateur community "to develop and disseminate information in the form of tables, charts and computer analytical tools that relate such variables as operating patterns, emission types, frequencies, power and distance from antennas." The Commission said it intends to provide "straightforward methods for amateur operators to determine potential exposure levels" by year's end.

"Exactly what is involved in conducting a 'routine RF radiation evaluation' is not yet clear," observed ARRL Executive Secretary David Sumner, K1ZZ, adding that the FCC has promised to release a revised OST/OET Bulletin Number 65, "Evaluation Compliance with FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation." The League is now studying the 100-plus page docket, to see if the League should seek reconsideration of any aspects of the FCC decision.

In the Report and Order, the Commission adopted Maximum Permissible Expo-

sure (MPE) limits for electric and magnetic field strength and power density for transmitters operating at frequencies from 300 kHz to 100 GHz. These MPE limits are generally based on recommendations of the National Council on Radiation Protection and Measurement (NCRP) and, in many respects, are also generally based on the guidelines issued by the Institute of Electrical and Electronics Engineers Inc (IEEE) and subsequently adopted by the American National Standards Institute (ANSI) as an ANSI standard (ANSI/IEEE C95.1-1992). The Commission used the 1992 ANSI/IEEE standards instead of the 1982 ANSI standards that had formed the basis for the existing rules under which Amateur Radio stations were categorically exempted.

ARRL Laboratory Supervisor Ed Hare, KA1CV, said the new regulations will give hams an incentive to demonstrate that Amateur Radio operation is safe. "Although this means that hams will have to become more educated about RF safety, most amateur stations are already in compliance with the new regulations," Hare said.

Sumner said that for certain unusual situations where there is "uncontrolled exposure" to neighbors and the general public, "amateurs may well have to make changes in how they operate." The ARRL Lab staff and the RF Safety Committee are continuing to evaluate the new requirements.

Hare noted that the administrative burden for hams will be minimal, and the FCC does not require amateurs to submit any documentation to the FCC. "In essence, the FCC is telling amateurs that if they run more than 50 W, they need to learn about RF safety and evaluate how this applies to their own operation," he said.

The new regulations also will require the addition of five questions on RF environmental safety to the amateur examinations for Novice, Technician, and General-class elements 2, 3(A) and 3(B). Sumner noted that the Commission's Report and Order does not take into account the practical problems associated with such a significant revision to the volunteer-administered amateur examinations, and that more time than the Commission has allowed will be required to do a good job.

The Commission acknowledged the updated guidelines generally are more stringent than the current rules and are based on recommendations of the federal health and safety agencies, including the Environmental Protection Agency and the Food and Drug Administration. The Commission said that the new rules will protect the public and workers from strong RF emissions. Adoption of the new rules by

Please turn to page 6

I pulled the Great Circus Train

By Don Evenson, K9JYX
401 11th Street, Baraboo, WI 53913



Mark Mullen, N9KQV, climbs the ladder to the cab of the E-9 diesel to handle the controls and take the Great Circus Train from Horicon to Milwaukee.

- K9ZZ photo

These words Mark Mullen, N9KQV, can proudly tell his grandchildren in the years to come.

Mark was one of the engineers working during the two days the Great Circus Train traveled from Baraboo to Milwaukee for the Great Circus Parade this past July 14.

A couple of weeks before the train trip Mark called Don Evenson, K9JYX, to ask about what type of communications were going to be aboard the train.

Don told Mark what the ARES group from Milwaukee headed up by Bob Goldstein, K9KJT, was doing with official communications for the Circus World Museum in Baraboo and the parade and train offices in Milwaukee.

Don then told Mark about the special

event station that would also be operating on HF and 2 Meters.

The reason that Mark needed to know was that his employer, William Gardner, owner of the Wisconsin & Southern Railroad, wanted Mark to be able to coordinate the ham operation with the railroad operation.

On the first day of the trip Mark rode in the car with the special events station and was able to keep the hams apprised with how close to schedule the trip was proceeding. This information was relayed to the ARES group on 2 Meter simplex, then they could keep the news media and the other officials up to date.

This was fortunate because near

Please turn to page 9

ON THE INSIDE

What's Happening: Edited by Ken Ebner, K9EN	2
Here and There	4, 5
Yellow Thunder Field Day Pix	6
From the Editor	6
Central States VHF Conference Report: John Feltz, WA9LWJ	7
The Computer Corner: By Dr. Stan Kaplan, WB9RQR	8
Encouraging Deaf Youngsters to get into ham radio	8
Wisconsin Amateur Internet Addresses	9
Editorial: The Feingold RFI Bill	9
Wisconsin Valley Radio Association	10
Riverland Amateur Radio Club	10
Washington County Amateur Radio Club	10
Taylor County Area Amateur Radio Club	10
Eau Claire Amateur Radio Club	11
Red Cedar Repeater Association	11
Racine Megacycle Club	11
Notes from the Section Manager	11
Quarter Century Wireless Association Southeastern Wisconsin Chapter 162	12
New Products	12
FCC Call Sign Update	12
Vanity Gate 2 Opens in September	13
ManCoRad Radio Club	13
Sheboygan County Amateur Radio Club	13
Wisconsin Amateur Packet Radio Association (WAPRI)	14
Yellow Thunder Amateur Radio Club	15



WHAT'S HAPPENING

✕ Swapfests and Other Social Events ✕ Club Meetings
✕ Amateur Radio Exam Schedules

EDITED BY KENNETH A. EBNETER, K9EN, 822 WAUONA TRAIL, PORTAGE, WI 53901

Swapfests and Other Social Events

SATURDAY, AUGUST 31, 1996. Hayward Hamfest, Hayward National Guard Armory, 721 North Iowa (Main) St., Hayward, WI. Contact: Namekagon Valley Wireless Association, PO Box 13010, Hayward, WI 54843. Wally Kruk, N9NAO, @ (715) 643-4940, Mary, KB9LFF or John, N9QWH @ (715) 378-2368, or Ed, KB9JPR or Jill, KB9KPL @ (715) 634-8921.

SUNDAY SEPTEMBER 8, 1996. Hamfest Radiofest Computer Expo, Dubuque County Fairgrounds, Dubuque, IA. Amateur Exams. Contact: GRARC, PO Box 546, Dubuque, IA 52004, or Loren Heber, (319) 556-5755, Jerry Lange, (319) 556-3050 or Jerry Ehlers, 583-1016. e-mail sheber@mwci.net.

SUNDAY, SEPTEMBER 8, 1996. Bolingbrook ARS Hamfest 96, Inwood Recreation Center, 3000 W. Jefferson ST. (Rt. 52), Joliet, IL. Contact: BARS Hotline at (708) 759-7005 between 6:00 a.m. and 9:00 p.m.

SEPTEMBER 13, 14, 15, 1996. ARRL National Convention at Superfest 96, Peoria Civic Center, Peoria IL. For exhibition information contact: R & B Productions, 7150 University ST., Peoria, IL 61614 (309) 693-9667. Fax: (309) 693-3465. For general information contact: Peoria Area ARC, PO Box 3508, Peoria, IL 61612-3508. Ron Morgan, KB9NW, General Chairman, (309) 692-FEST. E-Mail: Superfest@AOL.com.

SEPTEMBER 21 & 22, 1996. Radio Expo 96, sponsored by the Chicago FM Club, at the Lake County Fairgrounds, Rts. 120 and 45 in Grays Lake, IL. Grounds open 6:00 a.m. to 6:00 p.m. Buildings open 8:00 a.m. to 4:00 p.m. (3:00 p.m. Sun.). Amateur Exams both days. Limited indoor flea market tables available. No table reservations accepted after Sept. 7, 1996. Advance tickets \$5.00, Advance Tables \$20.00. Contact Chicago FM Club, P.O. Box 56724, Harwood Heights, IL 60656-0724. (708) 457-0966.

SUNDAY, SEPTEMBER 22, 1996. Dane County ARES Early Autumn Swapfest, Madison, WI. At Fast Forward Roller Skating and Skate Shop, 4649 Verona Road, (Hwy 151/18). Contact Dane County ARES, Inc., 810 Vernon Ave., Apt 4, Madison, WI 53714. (608) 222-3444.

SUNDAY, OCTOBER 13, 1996. Kettle Moraine Radio Amateurs 1966 Computer Fair and Hamfest. Waukesha County Exposition Center in the Forum Building, Highways J and FT in Waukesha, WI. Contact KMRA Swapfest, PO Box 411, Waukesha, WI 53187-0411. Or call Ron at (414) 547-2219 or Andy at 549-0393.

SATURDAY, OCTOBER 26, 1996. Hamfest Minnesota & Computer Expo. St. Paul Civic Center, St. Paul MN. Contact: PO Box 5598, Hopkins, MN 55343. (612) 535-0637.

SATURDAY, NOVEMBER 2, 1996. The Milwaukee Repeater Club is proud to sponsor the 12th annual "6.91" Friendly Fest", from 8:00 a.m. to 1:00 p.m. (sellers admitted at 6:30 a.m.) Place: Waukesha County Expo Center Forum, I-94 to County J, South to FT, West to Expo. Tickets are just \$4.00. Four-foot tables, \$5.00. Call Burt, N9VBI, (414) 328-0535 or send with SASE and payment to The Milwaukee Repeater Club, P.O. Box 2123, Milwaukee, WI 53201, Before October 15, 1996. Talk in on 146.91 - (The Friendly Repeater) and on 146.52. On-site Amateur Exams.

SUNDAY, NOVEMBER 3, 1996. Fox Cities Hamfest, Starlite Club, Hwy 55, North of Kaukana, WI. Amateur Exams. Advance Registration \$4.00, 8 foot long tables \$8.00. Contact: Chad Pennings, N9PRC, 318 E. Brewster ST., Appleton, WI 54911. (414) 954-1229.

SUNDAY, JANUARY 12, 1997. West Allis ARC, 25th Annual Midwinter Swapfest. Waukesha County Expo Center Forum, Waukesha, WI. Contact: WARAC Swapfest, PO Box 1072, Milwaukee, WI 53201.

SUNDAY, MARCH 9, 1997. SEWFARS SWAPFEST, Waukesha County Expo Center, Waukesha, WI. Contact: SEWFARS, P.O. Box 102, Delafield, WI 53018. (414) 650-0724.

SUNDAY, MARCH 16, 1997. Tri-County ARC Hamfest at the Jefferson County Fairgrounds, Activity Center, Hwy. 18 West, Jefferson, WI. Contact: TCARC, W9MQB, 711 East St., Fort Atkinson, WI 53538. (414) 563-6502 evenings.

SATURDAY, JULY 12, 1997. South Milwaukee ARC

Swapfest. American Legion Post 434, Oak Creek, WI. Contact (414) 762-3235.

See also the back page and flyer ads for additional information on many of these events.

Let us know of your dates as soon as you know them. We will list them and perhaps help avoid conflicts with other events.

As a service to our readers, this section of Badger State Smoke Signals is available without charge to list your upcoming Swapfest, Hamfest, dinner, picnic, party or other event of interest to Radio Amateurs in Wisconsin and nearby areas. Send information on your event to Kenneth A. Ebnetter, K9EN, 822 Wauona Trail, Portage, WI 53901. In addition, space is available at attractive rates on our advertising pages. For information on rates and requirements for our advertising pages, please contact K9ZZ or K9EN.

Club Meetings



Due to space limitations, we cannot always carry the full listing of Wisconsin and area club meetings. Please see the November 1995 meetings column for the latest complete listing. The following are additions or changes since that listing.

FALLS AMATEUR RADIO CLUB, INC
The Falls Amateur Radio Club, Inc. meets the last Wednesday of the month at the Bank One building in Germantown, WI at Pilgrim and Mequon Roads. The doors open at 7:00 p.m. and the meeting will begin at 7:30 p.m. !!GUESTS ARE WELCOME!!

YELLOW THUNDER AMATEUR RADIO CLUB (BARABOO)
Days rotate: The meeting dates for 1996 are Sep 12, Oct 15, Nov 13, with the Holiday party scheduled for Friday December 13, 1996. All meetings will be at the Baraboo Civic Center, room 14, unless otherwise noted. Starting time for the monthly club meeting is 7:30 p.m.. The program start time after the meeting is 8:00 p.m., with a one hour limit.

WISCONSIN RAPIDS AMATEUR RADIO CLUB
Third Wednesday, 7:00 p.m. in room 114 of the Wood County Courthouse. Talk-in on 146.79 for entry into the building.

THE WISCONSIN ASSOCIATION OF REPEATERS
SATURDAY, SEPTEMBER 14: The Wisconsin Association of Repeaters will meet at the Chalet Motel Restaurant at 10401 N. Port Washington Road in Mequon. There will be a Dutch treat lunch at noon, with the meeting to begin at 1 p.m. Anyone with an interest in repeater coordination is welcome to attend. (Thanks Nels Harvey, WA9JOB).

Badger State Smoke Signals

**Amateur Radio
Education and Information**

CHAIRMAN: Kenneth A. Ebnetter, K9EN, 822 Wauona Trail, Portage, WI 53901. Telephone (608) 742-3560.

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EDITORIAL BOARD: Ken Ebnetter, K9EN; Dave Knaus, WA9POV; Don Evenson, K9JYX; Jim Romelfanger, K9ZZ.

Subscriptions

1 year	(12 issues)	\$12.00
2 years	(24 issues - save \$2.00)	\$22.00
3 years	(36 issues - save \$4.00)	\$32.00

Special club package reduced rates are available. For information, contact Ken Ebnetter, K9EN.

When to Send It

The closing date for each issue is the first of the month for the next month's issue. For example, the closing date for the June issue is May 1.

The only exception is for participating clubs. Participating clubs are requested to send their material no later than FIVE DAYS after the club's meeting. For

example, if a club meets on the 4th of the month, the material should be sent no later than the 9th of that month. This material is to be sent to the Editor.

Where to Send It

Address changes and corrections should be sent to Ken Ebnetter.

Editorial material, photographs, feature articles, display ads, and exchange papers should be sent to Jim Romelfanger.

Inquiries about advertising should be directed to Ken Ebnetter.

Club, swapfest, and Test Point information should be sent to Ken Ebnetter.

Swapfest ads should be sent to Jim Romelfanger.

Subscriptions should be sent, with check or money order, to Jim Decker.

Conditions for Reprinting or BBS Posting Material from Badger State Smoke Signals

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Editorial Disclaimer

The opinions expressed in editorials, guest editorials, columns, articles, and letters from readers are the opinions of the authors only, and do not, unless otherwise stated, express or imply endorsement by *Badger State Smoke Signals*, or by any other individual or organization.

The Test Point



**Amateur Radio Examination Locations
and Schedules in the Wisconsin Area**

September 07, 1996 Fond Du Lac, WI
September 07, 1996 Oshkosh, WI
September 07, 1996 Racine, WI
September 07, 1996 St. Paul, MN
September 08, 1996 Dubuque, IA
Dubuque Hamfest

September 12, 1996 Apple Valley, MN
September 14, 1996 Appleton, WI
September 14, 1996 Blaine, MN
September 14, 1996 Bloomington, MN
September 14, 1996 Madison, WI
September 14, 1996 Oak Creek, WI
September 17, 1996 Eden Prairie, MN
September 18, 1996 Milwaukee, WI (MRAC)
September 21, 1996 Cottage Grove, MN

September 21, 1996 Loves Park, IL
 September 21, 1996 Onalaska, WI
 September 21, 1996 Grays Lake, IL
 September 22, 1996 Grays Lake, IL

Radio Expo 96
 September 28, 1996 Tomahawk, WI
 September 28, 1996 Wauwatosa, WI (MRAC)
 October 05, 1996 Oshkosh, WI
 October 05, 1996 Racine, WI
 October 05, 1996 St. Paul, MN
 October 10, 1996 Apple Valley, MN
 October 12, 1996 Medford, WI
 October 12, 1996 Blaine, MN
 October 12, 1996 Bloomington, MN
 October 12, 1996 Madison, WI
 October 12, 1996 Marshfield, WI
 October 12, 1996 Oak Creek, WI

KMRA Hamfest
 October 13, 1996 Waukesha, WI
 October 15, 1996 Eden Prairie, MN
 October 16, 1996 Milwaukee, WI (MRAC)
 October 19, 1996 Cottage Grove, MN
 October 19, 1996 Loves Park, IL
 October 19, 1996 Redgranite, WI
 October 26, 1996 Tomahawk, WI
 October 26, 1996 Wauwatosa, WI (MRAC)
 November 02, 1996 Waukesha, WI

9.91 Hamfest
 November 02, 1996 Menomonee, WI
 November 02, 1996 Oshkosh, WI
 November 02, 1996 Racine, WI
 November 02, 1996 St. Paul, MN
 November 03, 1996 Kaukauna, WI

Fox Cities Swapfest
 November 09, 1996 Blaine, MN
 November 09, 1996 Bloomington, MN
 November 09, 1996 Madison, WI
 November 09, 1996 Marshfield, WI
 November 09, 1996 Oak Creek, WI
 November 14, 1996 Apple Valley, MN
 November 16, 1996 Cottage Grove, MN
 November 16, 1996 Loves Park, IL
 November 19, 1996 Eden Prairie, MN
 November 20, 1996 Milwaukee, WI (MRAC)
 November 30, 1996 Onalaska, WI
 November 30, 1996 Wauwatosa, WI (MRAC)
 December 07, 1996 Oshkosh, WI
 December 07, 1996 Racine, WI
 December 07, 1996 St. Paul, MN
 December 12, 1996 Apple Valley, MN
 December 14, 1996 Blaine, MN
 December 14, 1996 Bloomington, MN
 December 14, 1996 Madison, WI
 December 14, 1996 Oak Creek, WI
 December 14, 1996 Marshfield, WI
 December 17, 1996 Eden Prairie, MN
 December 18, 1996 Milwaukee, WI (MRAC)
 December 21, 1996 Cottage Grove, MN
 December 21, 1996 Loves Park, IL

Monthly, 1st Sat. Racine, WI
 (except January, July & August)
 Monthly, 1st Sat. Oshkosh, WI
 Monthly, 1st Sat. St. Paul, MN
 Monthly, 2nd Thu. Apple Valley, MN
 Monthly, 2nd Sat. Oak Creek, WI
 Monthly, 2nd Sat. Madison, WI
 Monthly, 2nd Sat. Bloomington, MN
 Monthly, 2nd Sat. Blaine, MN
 Monthly, 3rd Tue. Eden Prairie, MN
 Monthly, 3rd Wed. Milwaukee, WI (MRAC)
 Monthly, 3rd Sat. Loves Park, IL
 Monthly, 3rd Sat. Cottage Grove, MN
 Monthly, Last Sat. Wauwatosa, WI (MRAC)
 (except December)
 Monthly, Last Sat. Tomahawk, WI
 (January thru October only)
 Quarterly Marshfield, WI
 (Second Saturday every third month.)

Many Swapfests/Hamfests offer exam sessions. If not shown above contact the sponsoring club in the Swapfest column on page 2.

The FCC now requires applicants to show their ORIGINAL AMATEUR LICENSE to the VEC. A copy of your license must be attached to your FCC form 610. You will also be required to have a photo ID, or other acceptable identification.

GENERAL RULES

FOR MOST EXAMINATIONS:

Be sure to check with sponsors in the event there are changes and/or errors in the dates or information given.

Some examinations require filing an FCC Form 610 and advance registration at least 30 days before the exam date. (Some VECs permit walk-ins. Check with sponsor.)

To register, you must first secure a copy of the current FCC Form 610 and fill it out completely (AND CORRECTLY). Get your form from an FCC Field Office, the ARRL. Send a 32c/ SASE if you request one from the ARRL. In most cases, forms can also be obtained from the sponsoring group.

ARRL/VEC examinations require a check for \$6.05 payable to "ARRL/VEC".

The FCC now requires applicants to show their ORIGINAL AMATEUR LICENSE or CSCE to the VEC. You must also have two good copies of your license or CSCE. A copy of your license or CSCE must be attached to your FCC form 610 and most VEC want a copy for their records. You will also be required to have a photo ID, or other acceptable identification.

Technician class licensees must show proof of testing

before March 21, 1987, in order to upgrade to General with a code test only.

Additional information is given below.

MILWAUKEE RADIO AMATEURS' CLUB (MRAC/VEC)

OAK CREEK, WI

SECOND SATURDAY DATE: 1:00 p.m. at Wauwatosa Savings Bank, 6560 S. 27th St., Oak Creek, WI.

THIRD WEDNESDAY DATES: At 6:30 p.m. at Village at Manor Park, (was Methodist Manor) 3023 S 84th St., (84th & Oklahoma) Milwaukee, WI.

LAST SATURDAY DATES: (except December): 9:00 a.m. at 7500 W. State St., Wauwatosa S&L, lower level, Wauwatosa, WI.

For Additional Information Contact; Jack Krause, (414) 774-6999 or call (414) 466-HAMS (Answering Machine) or write Milwaukee Radio Amateurs Club, PO Box 25707, Milwaukee, WI 53225.

Bring along your ORIGINAL license, CSCE and two (2) good quality photocopies, plus two forms of identification, such a driver's license, etc. Also required is \$5.00 for the exam fee. WALK-INS are welcome. To register in advance, use a post card: print the grade of license you are applying for, and your name, address, and telephone number. Send the card to MRAC/VEC, at the addresses shown above.

BADGER EXAMINERS (BE) - MILWAUKEE

Amateur exams: 1:00 p.m. to 4:00 p.m. Commercial exams: 9:00 a.m. to 12:00 noon.

Unless otherwise noted at WMVS-TV studios, MATC Downtown campus in the C building starting at 9:00 a.m. for commercial exams and Amateur exams at 1:00 p.m. the same day. The address is 1036 N. 8th Street, Milwaukee. Enter at the North West entrance of C Building. Walk-ins are welcome. To register in advance, send a post card with your name, test or tests you wish to take, date you wish to take., your call sign, address and telephone number to Badger Examiners, Gary J. Sharbuno, WI9M, 5119 W. Willow Rd., Brown Deer, WI 53223. Telephone (414) 355-0237.

Also available FCC General Radio Telephone Commercial exams. Fees are \$5.90 for the Amateur Radio exams and \$35.00 for the commercial exams.

MADISON, WI

VE exams are held in Madison every second Saturday morning of the month at 8 a.m. They are held at the operations building of the Madison Metropolitan Sewerage District at 1610 Moorland Rd. To get there take the Beltline (Hwy 12 & 18) to South Towne Drive. Go south 8/10 mile till South Towne Drive makes a bend and becomes Moorland Rd. and enter at gate.

You should bring a picture ID, your original licence and a copy of your licence. For exams beyond the novice tests, bring a check for \$5.90, made out to the ARRL/VEC. If the special 610 form with the medical exemption is required, contact me beforehand to obtain one. No appointments are necessary to take exams. For further questions, please leave a message on the mailbox or phone me at (608) 832-6631.

Mark Jenks, N29B

RACINE, WISCONSIN - ARRL/VEC

Monthly - first Saturday, except January, July, and August.

Monthly exams are given 9:00 to 11:00 a.m. at the Red Cross Building, 4521 Taylor Avenue, Racine. Walk-ins are permitted.

Talk in on 147.87/.27. Inquiries and registrations should be directed to Robert N. Jensen, W0WLN, 5616 Cambridge Lane #6, Racine, WI. Telephone (414) 886-8551.

TOMAHAWK, WI

Last Saturday of every month. Jan. thru Oct.

Tomahawk Volunteer Examiners (ARRL/VEC). Tomahawk, WI. No preregistration required, but appointment would be appreciated. Registration at 8:30 a.m. and testings starts at 9:00 a.m. For location or other information, inquire on 145.43 MHz. repeater or contact: Terry Collins, KB9AUP, W6564 Highway 8, Tomahawk, WI 54487. Telephone (715) 453-4633.

APPLETON, WI - ARRL/VEC

MANITOWOC, WI (HAMFEST)

KAUKAUNA, WI (HAMFEST)

Conducted by the Fox Cities ARC VE team. All test sessions in Appleton are held at James Madison Jr. High, 2020 S. Carpenter Street. Candidates check in between 8 and 9 a.m. with testing starting at 9 a.m. No walk-ins after 9 a.m. Contact George R. Croy, W9MDP, 2113 Twin Willows Drive, Appleton, WI 54914. (414) 730-0967, or Larry Siebers, KD9IA (414) 730-0967.

KAUKAUNA WI (FOX CITIES HAMFEST) ARRL/VEC

Registration 8:00 a.m. to 9:00 a.m. No walk-ins after 9:00 a.m. Bring original license plus (2) copies and a photo ID. For more exam information contact: Larry Siebers, KD9IA, (414) 757-1167.

FOND DU LAC, WI (ARRL/VEC)

Saturday, September 7, 1996 from 9:00 a.m. to Noon at Community United Methodist Church, 701 Minnesota Ave., North Fond du Lac, WI. Contact: Doug Schultz, (N9EZF) at (414) 922-3038.

MARSHFIELD, WI (ARRL/VEC)

Sponsored by the Marshfield Area ARS. Held at St. Joseph Hospital, 611 St. Joseph Ave. On 9 November in the 1 West classroom located adjacent to the Westwood Cafeteria on the main floor of the hospital. Use the main entrance or any other entrance and follow the signs to the cafeteria. Registration starts at 8:30 a.m. with testing starting at

9:00 a.m. Talk in on the 147.18 Marshfield repeater. Walk-ins welcome. Contact: Walter Friant, WBOKIN, 2310 Wallonie Drive, Marshfield, WI 54449 (715) 387-3870.

PEWAUKEE, WI

Kettle Moraine Exam Team. Held at the Pewaukee WCTC Campus Science Building, Room S101. 9:00 a.m. to Noon. Contact Al Johnson, AA7CS. (414) 568-0836.

REDGRANITE, WI (W5YI and ARRL VEC)

OUR TEST ARE NO LONGER MONTHLY. The Radio Amateurs of Wisconsin (RAW) club of Redgranite will hold their 1996 test sessions on October 19. These are held at the Civic Center in Redgranite, 202 Pine River Road, one block from Highway 21. Registration at 0830 sharp, with testing at 0900 sharp. Bring two forms of identification, \$6.50 per test, and two copies of all original documents, CSCEs, Licenses, etc. Breakfast is at the Curve Inn, on highway 21. All are welcome. For further information, please contact Mark Miller, AA9RC at 231-1662 or Terry Witt, AA9BA at (414) 685-5018.

OSHKOSH (OMRO)

The Oshkosh VE Team will administer Amateur Radio exams monthly on the first Saturday. Exams will be given from 9 a.m. until noon at the Omro City Hall. Registration begins at 8 a.m. Walk-ins OK. Bring a good quality photocopy of your original license. The first session will be through W5YI/VEC, and then sessions will alternate between ARRL/VEC and W5YI/VEC. For more information, please call Dick Lemme, KB9FA, at (414) 235-0987, or write Dick at 826 Jefferson Street, Oshkosh, WI 54901.

ONALASKA, WI

Saturday, September 21st

Saturday, November 30th.

On behalf of the Riverland Amateur Radio Club's VE team and Bill Wood, KE9XQ team Chairman, we announce the amateur radio exam schedule for 1996. The sessions will be held at 7 O'clock P.M. at the Onalaska Community Center, 515 Quincy Street in Onalaska WI:

The team is field-stocked, and walk-in candidates are welcome. The team does appreciate advance registration, especially for license exams for the General, Advanced, and Extra classes. We will allow a retest on a time available basis, provided a second exam fee is paid. We use multiple choice format answers for the Morse Code exams.

For further information or to preregister for an exam session, please call Bill Wood, KE9XQ at (608) 788-8571. You may also contact Karl Simonson, KB9EQI at (608) 526-9413 or via packet: KB9EQI@AA9AW.EN43KM.WI.USA.NA

MEDFORD, WI (ARRL/VEC)

Saturday, October 12, 1966

Sponsored by the Taylor County Area Amateur Radio Club. Testing for all classes Novice through Extra. Registration starts at 8:30 a.m. with testing starting at 9:00 a.m. Tests are held at the conference room in the lower level of the Sheriff's Annex to the Taylor County Courthouse, corner of 2nd and Ogden Sts., Medford, WI. Take Ogden Street west off Highway 13 to the Courthouse. Park in the lots on the east or south sides of the Courthouse or on the street. PLEASE use the entrance on the south side of the Courthouse and watch for the signs. Talk-in on the 147.15 (+600 KHz) repeater. Walk-ins welcome, however, if you know you'll be attending, it would be appreciated if you would call ahead. Contact: Tom Hrdina, N9GEN, 2373 Willow Ave., Medford, WI 54451. Telephone (715) 748-4054.

CEDARBURG, WI - ORC HAMFEST

EAU CLAIRE, WI - ECARC HAMFEST

GREEN BAY, WI - ARES HAMFEST

HAYWARD, WI - HAYWARD HAMFEST

KAUKAUNA, WI - SWAPFEST

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MARSHFIELD, WI - HAMFEST

OAK CREEK, WI - SMARC HAMFEST

RACINE, WI - RACINE HAMFEST

RHINELANDER, WI - NWARC SWAPFEST

ROCKFORD, IL - RARC HAMFEST

ROTHSCHILD, WI - WVRA HAMFEST

SOUTH MILWAUKEE, WI - SMARC HAMFEST

STEVENS POINT, WI - CWRA SWAPFEST

WAUKESHA, WI - KMRA SWAPFEST

WAUKESHA, WI - MIDWINTER SWAPFEST

DUBUQUE, IA - HAMFEST

See the Swapfest column for additional information and contact persons.

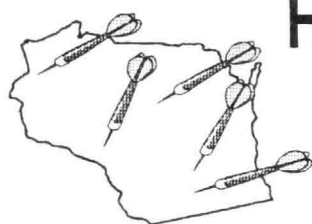
DUBUQUE, IA - ARRL/VEC

Dubuque Hamfest. Contact: Carl Clark, N0KAX, 2145 Delicia Drive, Dubuque, IA 52001. (319) 557-9149.

LOVES PARK, IL

Third Saturday of every month. Northern Illinois Volunteer Examiners (W5YI VEC). Held at North Suburban District Library, 6340 North Second St. (Hwy. 251), Loves Park, IL. Contact: Dennis G. Eksten, W9SS, (815) 877-6768.

This section of Badger State Smoke Signals is available to publicize your Volunteer Examiner Amateur Radio license examination schedules. Please send us your schedules of dates, times, and locations that you will be conducting examinations and we will include the information here. Be sure to include contact address and any other necessary requirements. Information should be sent to K9EN at the address shown on page 2.



HERE and THERE

FCC creates new low-power radio service

The FCC has created a new Low Power Radio Service (LPRS) in the 216-217 MHz band. The Part-95 service will be authorized on a secondary, noninterference basis for short-range communication to include auditory assistance devices for persons with disabilities; health-care assistance devices; law-enforcement tracking systems; and point-to-point network control communications for Automated Maritime Telecommunication Systems (AMTS).

LPRS transmitters will not require individual licenses. Transmitters must be type-accepted. Maximum ERP is 100 mW. Bandwidths may range from 5 kHz to 50 kHz, although the rules permit AMTS wideband emissions up to 250 kHz in the upper portion of the band.

- The ARRL Letter, 8/2/96

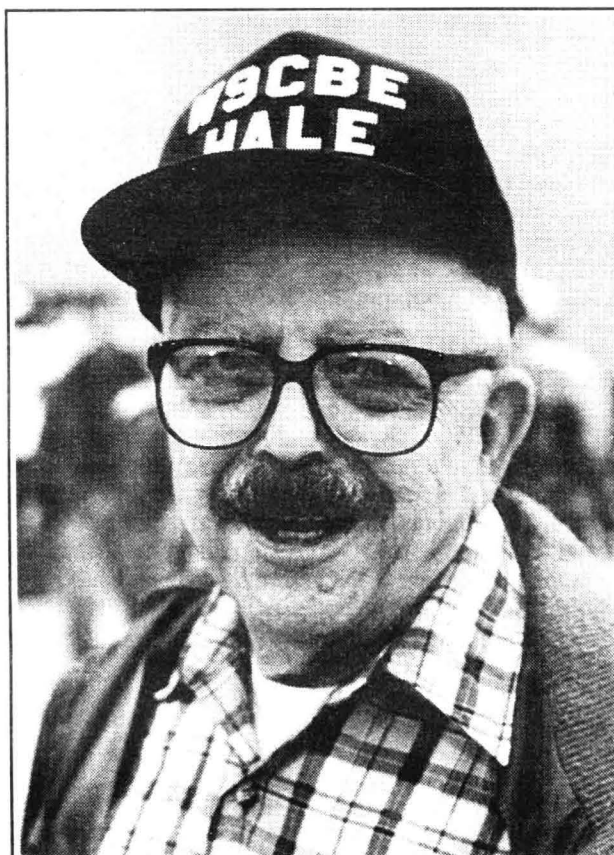
QSLs sought for ham radio cop shot in line of duty

W. D. "Dave" Harvey, KE4VDP, of Lithonia, Georgia, is recuperating from gunshot injuries that almost cost him his arm and still could cost him his career as a police officer. On July 13, Harvey, who's with the DeKalb County Police Department in Decatur, Georgia, responded to a call of shots

fired.

He came face-to-face with a man armed with a rifle who fired two shots at Harvey, hitting him once -- in the left forearm -- before two other officers returned fire and killed the man.

Harvey is out of the hospital following surgery, but he's been told he might lose much of the use of his hand and that he might never again be able to work as a police officer. Even so, Lt J. E. Hanson



McFarland's Hale Blakely, W9CBE, is one of Wisconsin's most prolific and proficient traffic handlers. Hale, who has been active in handling traffic for many years, does it on CW, phone, and packet, which covers the bases well. This photo was taken at the Madison Swapfest in April.

Hail, Hale! QRV?

of the DeKalb County PD says he visited Harvey recently and said he's remaining "very optimistic" that Harvey will be able to return to duty.

His friend and colleague, Jim Sheppard, KT4-FD, says Harvey has been a ham for about a year and a half and has never received a QSL card. During Harvey's recuperation, he's requesting hams send KE4VDP their QSLs to cheer him up and wish him a speedy recovery. Sends cards to Dave Harvey, KE4VDP, 2850 Shiloh Way, Lithonia, GA 30058.

- The ARRL Letter, 8/8/96

Pitcairn ham radio stamps

Pitcairn Island in the Pacific -- famous as the final refuge the mutineers from the HMS Bounty -- is issuing four Amateur Radio stamps on September 4, 1996. One 20-cent stamp lists the call signs of this year's members of Pitcairn's Amateur Radio club; two \$1.50 stamps show VR6IM requesting and receiving medical assistance, and a \$2.50 stamp shows Andrew Young, VR6AY, Pitcairn's first amateur, in 1938. Pitcairn has the largest population of amateurs per capita of any country in the world. Nearly one of every four of the 50 or so people on the island is licensed. If you're intersted in Pitcairn Island, check out the Pitcairn Island Web site at <http://wavefront.wavefront.com/~pjlareau/pitc1.html>.

- RSGB/Larry Price, W4RA in
The ARRL Letter, 8/8/96

ARRL International Humanitarian Award nominations open

We, as radio amateurs, provide assistance to people in need throughout the world on a regular basis. We communicate daily with common people from all parts of the world. Amateur Radio is the only medium where average people throughout the world can meet to talk to each other and spread good will across otherwise impenetrable political boundaries. The world needs positive efforts toward international understanding and peaceful communications.

Recognizing the above, the League established an annual international prize to be awarded to truly

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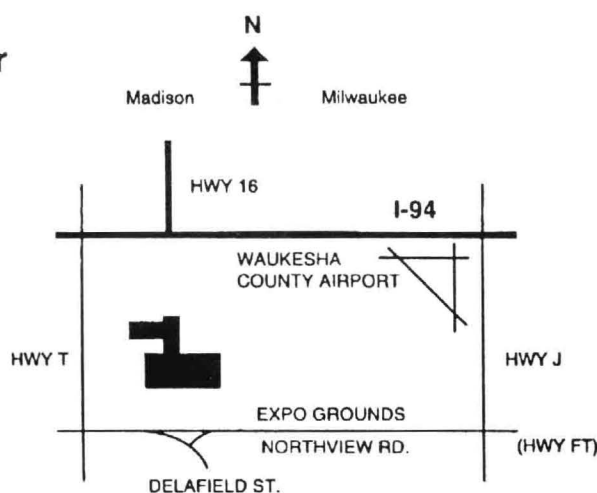
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The 18th Annual Fall Kettle Moraine Radio Amateurs 1996 Computer Fair and Hamfest Sunday, October 13th, 1996

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- Electrical outlet - \$8.00 as available
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VENDOR SET-UP AT 6:00 AM

Responses to all correspondence and ticket requests received on or after October 7, 1996 will be held at the door!

outstanding Amateur Radio operators in areas of international humanitarianism and the furtherance of peace. The award is dedicated to those amateurs who, through Amateur Radio, are devoted to promoting the welfare of mankind.

The selection of the recipient of the award is made by a committee appointed by the President of the ARRL.

Any licensed radio amateur worldwide, or group of amateurs who, by use of their skills of Amateur Radio, have provided extraordinary service for the benefit of others in times of crisis or disaster, is qualified to receive the award.

Nominations for the award will be accepted by the committee from a licensed radio amateur, governmental or any other organization which has received the benefits of the radio amateur's extraordinary service. In the event that no nominations are received, the committee may determine possible recipients or may decide to make no award in a given year.

Nominations must contain the following: A summary of the actions of the nominee that qualify the recipient for the award, and statements from at least two references, including names and addresses for verification. The award winner receives an engraved plaque, and is profiled in *QST*.

All nominations and supporting materials for 1996's award must be submitted in writing in English to: ARRL International Humanitarian Award, 225 Main St, Newington, CT 06111 USA. Nominations must be received by December 31, 1996.

- The ARRL Letter, 8/8/96

Solar activity down, flux above recent average

Solar seer Tad Cook, KT7H, reports that solar activity declined during the first week of August as compared with the previous week, but solar flux was above the average for the previous 90 days for the thirteenth day in a row. The current 90-day average has risen from 70 to 71. Solar flux was expected to go below 70 until August 22, and then peak around the mid-70s again on August 28. The geomagnetic field is expected to stay stable over the month. Forty meters remains the best worldwide band at night, while 20 meters is most reliable during daylight hours.

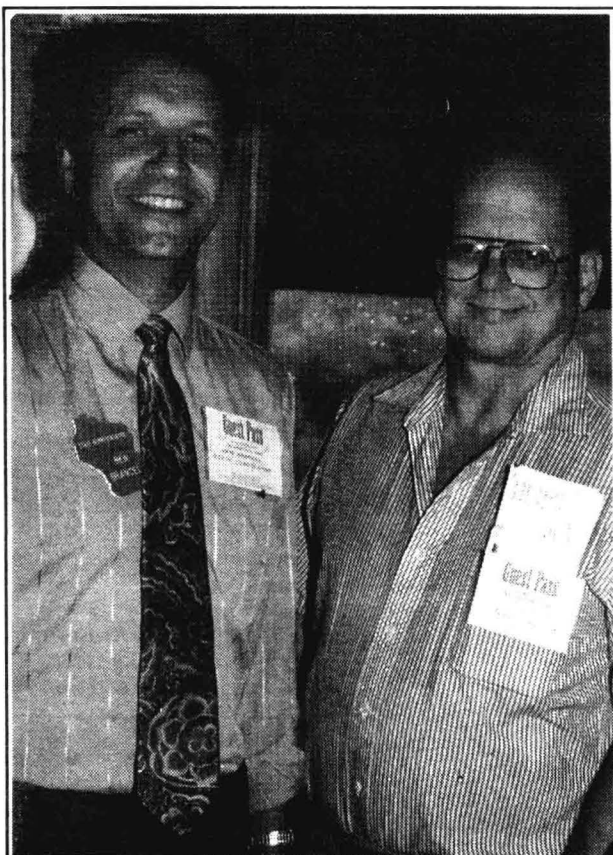
Sunspot numbers for August 1 through August 7 were 32, 34, 30, 29, 20, 13 and 26 respectively, with a mean of 26.3. The 10.7-cm flux was 80.4, 79.6, 79.3, 77.6, 74.1, 73, and 71.6 respectively, with a mean of 76.5.

- The ARRL Letter, 8/16/96

FCC issues revised call sign table

Working up that list of favorite call signs as you await the opening of vanity Gates 2, 3 or 4? Well, you should know that certain combinations of letters are not assignable. According to the most recent information from the FCC, these include: KA2AA-KA9ZZ, KC4AAA-KC4AAF, KC4USA-KC4USZ, KG4AA-KG4ZZ, KC6AA-KC6ZZ, KL9KAA-KL9-KHZ, KX6AA-KX6ZZ; any call sign having the letters SOS or QRA-QUZ as the suffix. In addition, don't ask for any call sign having the letters AM-AZ as the prefix; any 2x3 format call sign having the letter X as the first letter of the suffix; any 2x3 format call sign having the letters AF, KF, NF or WF as the prefix and the letters EMA as the suffix; any 2x3 format call sign having the letters NA-NZ as the prefix; any 2x3 format call sign having the letters KP, NP or WP as the prefix and the numeral 0, 6, 7, 8 or 9; any 2x2 format call sign having the letters KP, NP or WP as the prefix and the numeral 0, 6, 7, 8 or 9; or any 2x1 format call sign having the letters KP, NP or WP as the

Rep. Brancel says "hello" to radio crew on Great Circus Train



Wisconsin State Representative Ben Brancel (left) stopped for a short visit with the Amateur Radio personnel (that's Don Evenson, K9JYX, at right) during the 1996 journey of the Great Circus Train. Rep. Brancel is currently "on the stump," campaigning for re-election. He introduced PRB-1 in the Assembly in the last session, but a last-minute amendment by Rep. Dobyms which would delete cities and villages from the bill had the effect of killing the bill. Brancel indicates he will introduce PRB-1 again next session. Sen. Dale Schultz also stopped to say "howdy."

BSSS staff photo

prefix and the numeral 0, 6, 7, 8 or 9.

The FCC will not assign any letter combinations that prior recipients have found offensive. Also remember that 2x1 call signs having the single letter prefix (K, N or W), a single digit numeral (0, 1, 2, 3, 4, 5, 6, 7, 8 or 9) and a single-letter suffix are reserved for the special-event call sign system.

On the Lighter Side

By Bob Beasley, K6BJH



NO, I DON'T HEAR A HIGH-PITCHED TONE ON YOUR SIGNAL. SOUNDS OK TO ME!

FCC Form PR-5000 #206V, Amateur Station Vanity Call Sign System, outlines all the procedures for the vanity call sign system. For more information, call the FCC Consumer Assistance Branch, 800-322-1117 or 717-338-2500, or write 1270 Fairfield Rd, Gettysburg, PA 17325-7245.

- The ARRL Letter, 8/16/96

UPDATE: Gate 2 of the vanity Gates will open in September. Please see the story on page 13 of this issue of *Badger State Smoke Signals*.

Wisconsin senator seeks local control over RFI

Acting in response to what he says are nearly 45,000 complaints to the FCC every year, firstterm Sen Russ Feingold (D-Wisconsin) has introduced S 2025, which would give state, county and local governments the ability to regulate interference from CB radios "when that interference results from a violation of FCC rules." Saying his bill "simply allows common sense to prevail," Feingold reasons his measure would give states and localities the ability to investigate and enforce Federal law, "thereby protecting the rights of their residents." The bill would only affect unauthorized CB transmitters or amplifiers. Municipalities could prohibit use of the equipment and levy fines or other monetary sanctions.

Recently, the City Council of Beloit, Wisconsin -- reacting to complaints from local residents of interference to home electronic equipment -- passed an ordinance that would give that city the power to enforce FCC regulations on CB interference. While the bill is an explicit reversal of the total Federal preemption over telecommunications matters granted by the Communications Act of 1934, it contains a provision reaffirming the continued Federal preemption in handling other types of RFI.

Feingold said he's tried to enlist FCC help in investigating constituents' RFI complaints without success. He said he was told the FCC no longer investigates RFI complaints and offers "only a packet of self-help information for the consumer to limit the interference on their own."

It's all a question of fairness, Feingold says: "It is not fair that municipalities and their residents should be hamstrung by an outdated Federal preemption of laws the Federal government no longer has the resources to enforce." The bill has been referred to the Senate Commerce, Science and Transportation Committee.

(BSSS editor's note: See editorial on page 9.)

- The ARRL Letter, 8/16/96

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September 1996

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New FCC Standards Include Ham Radio

Continued from front page

August 6 was required by the Telecommunications Act of 1996.

The Commission also incorporated into its rules provisions of Section 704 of the Telecommunications Act of 1996 that preempt state or local government regulation of personal wireless services facilities based on RF environmental effects, to the extent that such facilities comply with the Commission's rules concerning such RF emissions. This preemption does not directly affect Amateur Radio, however.

The FCC said amateur stations "present an unusual case with respect to compliance with RF exposure guidelines," in part because they are authorized to transmit from any place where the Commission regulates the service, as well as on the high seas, and the FCC does not pre-approve individual amateur station transmitting facilities and no additional application is made for permission to relocate an amateur station or to add additional stations at the same or other locations. The FCC also noted that amateur stations "vary greatly" from one location to another, transmit intermittently, and can involve "as many as 1300 different emission types -- each with a distinctive on-off duty cycle." The FCC said most amateur stations engage only in two-way communication, thus cutting the transmitting time of any given ham station. "There are many variables, therefore, to be considered in determining whether an amateur station complies with guidelines for environmental RF radiation," the FCC said in the Report and Order.

In comments filed earlier with the FCC, the ARRL strongly opposed adoption of the new requirements. The ARRL said most Amateur Radio users do not possess the requisite equipment, technical skills, and/or financial resources to conduct an environmental analysis. The League has, for several years, recommended a policy of "prudent avoidance" of exposure to electromagnetic radiation as a common-sense approach to potential -- but not yet proven -- health hazards and against such practices as running high power to indoor antennas or to mobile

antennas that might expose the vehicle's occupants. The ARRL also argued that amateur stations, because of their intermittent operation, low duty cycles, and relatively low power levels, rarely exceed the 1992 ANSI/IEEE standard. Finally, the ARRL noted that unlike other radio services, RF safety questions already are included in amateur license examinations.

The FCC agreed in part. "We concur with the ARRL that amateur operators should follow a policy of prudent avoidance of excessive RF exposure," the Commission said. "We will continue to rely upon amateur operators, in constructing and operating their stations, to take steps to ensure that their stations comply with the MPE limits for both occupational/controlled and general public/uncontrolled environments." But the FCC expressed concern that Amateur Radio operations "are likely to be located in residential neighborhoods and may expose persons to RF fields in excess of the MPE guidelines."

For now, the League advises hams not to panic and to read up on the subject. You can download the complete Report and Order by pointing to http://www.fcc.gov/Bureaus/Engineering_Technology/Orders/fcc96326.txt.

Other resources are available on the ARRL Web page at <http://www.arrl.org/news/rfsafety/>.

General information on RF safety is available in the safety sections of the 1996 edition of *The ARRL Handbook* and in the 15th edition of *The ARRL Antenna Book*. These materials offer guidelines on how to comply with the ANSI standard the Report and Order refers to. Additionally, the ARRL Technical Information Service offers an information package on RF safety. It includes a reprint of the Handbook material, an April 1994 *QST* article by Wayne Overbeck, N6NB, and a bibliography on the subject. This package is available for \$2 for ARRL members or \$4 for nonmembers, postpaid. Nonmembers should include payment with orders. Contact Bridget DiCosimo, e-mail bdicosimo@arrl.org or write 225 Main St, Newington, CT 06111. Other resources are available on the ARRLWeb page at <http://www.arrl.org/news/rfsafety/>. The ARRLWeb information will be updated as circumstances dictate.

- The ARRL Letter, 8/8/96

FROM THE EDITOR.....

The late Gilda Radner said it well, and she was right: "It's Always Something!"

Earlier in the year, we needed to procure better optical character recognition software to help us produce this newspaper every month. ManCoRad came through for us and donated \$130.00 for what has turned out to be some very powerful and very intelligent software from Caere.

Now, our laser printer is giving us problems, and needs repair or replacement. Considering all facets, it will be, without question, best to replace the HP LaserJet III with a 600 dpi HP LaserJet 5L, or for better performance and more memory to handle large graphic and image files, the Hewlett-Packard Model 5. We already have, either in hand or committed, \$300.00 from one club and several individuals; generous and helpful, to say the least. We need to find \$200.00 more, and we will be able to upgrade to the new laser printer! If you or your club would like to lend a hand to this volunteer effort, it would be most welcome. And we would be more than grateful.

The HP 5L or Model 5 will also allow us to get the greatest benefits of that Caere software.

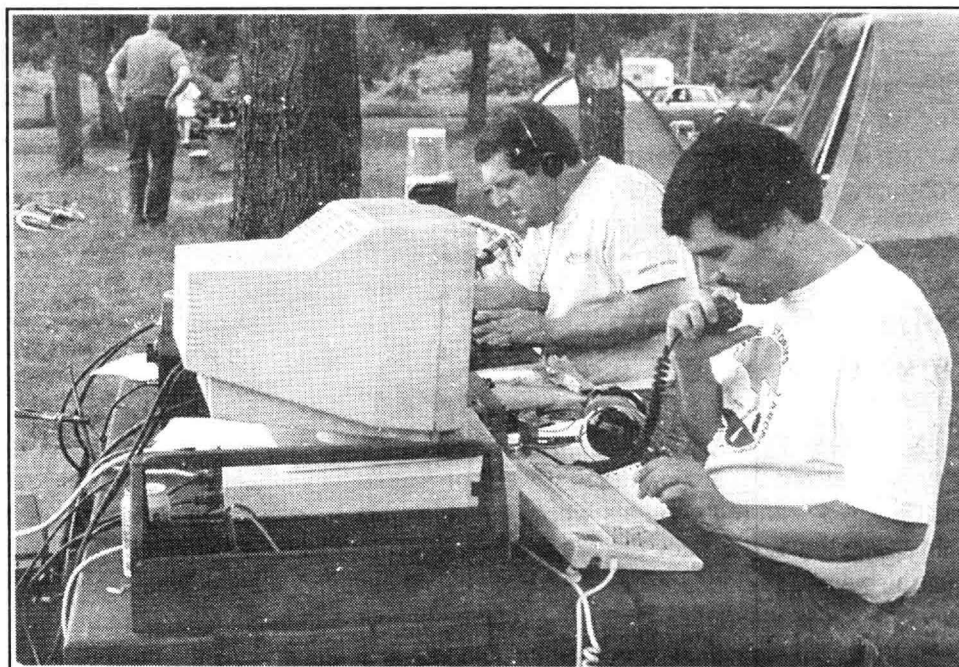
All who help will be credited in print, unless they ask otherwise. Thanks for reading.

Jim Romelfanger, K9 Zed Zed, editor,
and the volunteer staff of BSSS

Yellow Thunder Amateur Radio Club • Field Day 1996



YTARC's brand-new banner was hung to let non-hams and visitors to Owen Park in Columbia County know a bit of what Field Day was about and who was doing it. Club President Steve Schulze, N9UDO, is at left, and Bill Hommell, KA9QFJ, is at right.



The 70cm, and 6 and 2 meter SSB operating positions were manned by Wayne Burgess, N9UDX, left, and Bill Hommell, KA9QFJ.

George McArthur, N9ZGY, operated 2-meter FM. Later, his HF rig was pressed into service, as no one else had one at the time. The Azden rig worked well thru a Drake antenna tuner into an MFJ G5RV antenna.

Later, Karen Schulze, N9UDO's XYL, brought out some of the best food YTARC has seen and consumed in years.



- Photos and general notes
by Jim Romelfanger, K9ZZ

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Movie camera (8mm Bolex Zoom 9-30mm Reflex P2), splicer (8mm Kalart custom), editor (8mm Baia Mark II reviewer 11 watts 120 VAC) and projector (8mm Bell and Howell autoloader Filmovara zoom lens 17-27mm).

Color video cassette recorder (Sanyo VCR 6800 Beta), infrared remote control and 8 cassettes.

Seven inch reels of quarter-inch audio tape recordings of old shortwave shows and music.

Rich Regent, K9GDF, 5003 S. 26th Street, Milwaukee, WI 53221. (414) 282-0312.

30th annual Central States VHF Society Conference draws from many countries

By John Feltz, WA9LWJ

The 30th annual Central States VHF Society conference is now history. Hams from throughout the United States, Canada, and Europe attended.

The conference was held at the Thunderbird Convention Hotel, across from the Mall of America in Bloomington, Minnesota on July 25 - 28. Sixteen Wisconsin hams were counted, but there may have been more. The Wisconsin attendees included KD9PW, N9ROX, WA9LWJ, K9IMM, WF9X, KE9QT, WA9SZH, WA9FWD, WA9O, WA9HCZ, W9XT, N9OO, KB9ZK, N9BMH, WD9BGA, and N0AKC.

July 26 was antenna gain measurement day, with WB0TEM (Marc) checking 144, 222, and 432 MHz antennas. Kent, WA5VJB, did the microwave tests. Several hams built antennas of their own designs, and competition was keen with 90 entries. I do not have the results at the time this is being written.

To receive some weak signals, the use of preamps is a must, and 150 hams submitted designs for measurement. Zack Lau, KH6CP/1, a technical writer for the American Radio Relay League, won several categories in the UHF and microwave regions with preamps having very low noise figures.

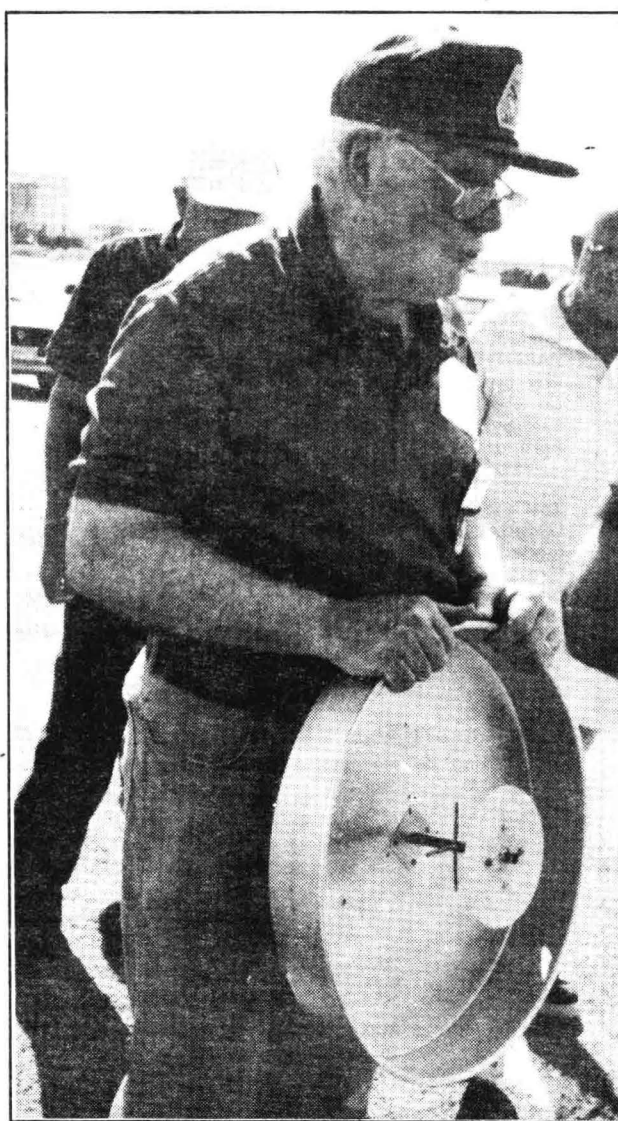
For the hams with the new-type transverters, Steve, N2CEI, of Down East Microwave, gave hints and suggestions for improvements in designs.

Through Friday and Saturday, 20 papers were presented to the conference. Some of the papers were "Microstrip 'Patch' Antennas," a design by Roger, WB0DGF, "Current Trends in DSP" by Al Clark of Time Wave, "Multi-Hop Sporadic-E Path Loss" by Ken, WF9X, "SMIRK - Six Meter International Radio Klub" by Pat, W5OZI, "Phase 3D" by Bill, W3XO/5 (AMSAT president), "Project Argus, Challenge of Real-Time All Sky SETI" by Paul, N6TX, "GaAs FET Preamp Design" by Kent, WA5VJB, "EMR Health" by Waybe, N6NB, "Latest Microwave Products" by Al, WB5LUA, "VHF Contesters in Europe" by Keith, G4FUF, and "Moon Bounce" by Barry, VE4MA.

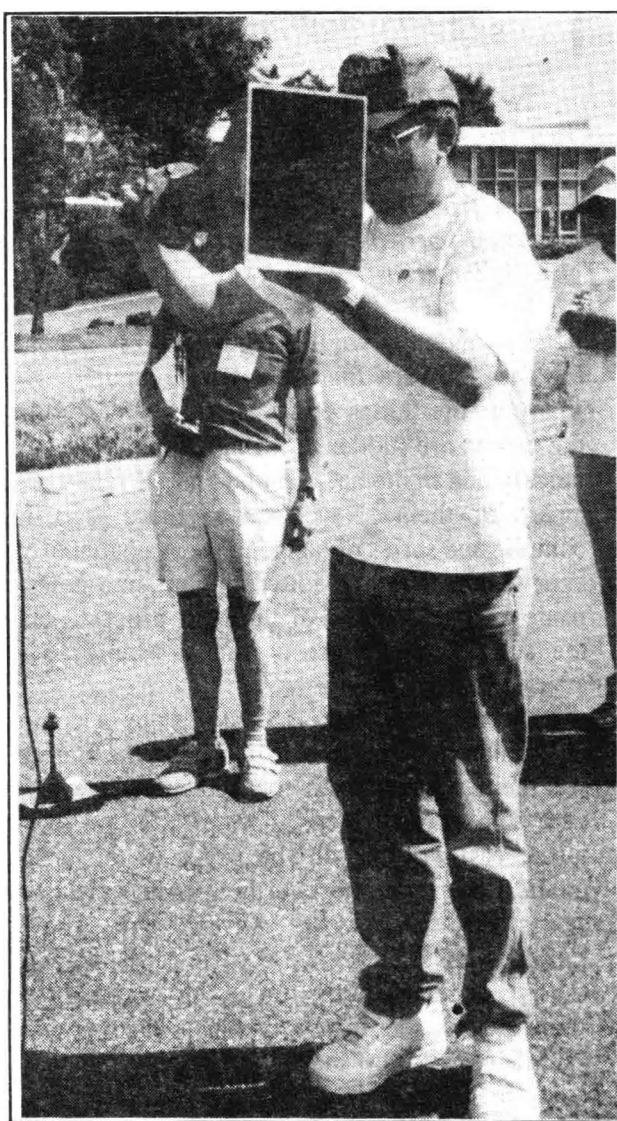
Attending the conference were Emil Pocock, W3EP, who writes the *QST* column "The World Above 50 MHz," and Rich Moseson, NW2L, who is the editor of *CQ VHF Magazine*.

Many other hams who are big in VHF contesting and building ham gear were represented.

Next year, the conference moves to Hot Springs, Arkansas, on July 25 - 27, 1997. If you are interested in the "high" bands, these meetings are the place to be. □



Bill Tynan, W3XO/5, AMSAT president, with a 1296 backfire reflector antenna.



Kent Britain, WA5VJB, with a 2404 MHz horn antenna.

- Photos courtesy John Feltz/WA9LWJ

Speedy FCC?

Remember the days when you took your test, then waited weeks for the FCC to process your application and mail your ticket? The FCC says long waits now are a thing of the past. Processing times in the Amateur Radio service have dropped "from 75 days to overnight" as part of the FCC's effort over the past several months to improve Commission processes. The FCC's recently announced electronic filing initiative is part of that effort.

The FCC has opened its new toll-free national call center in Gettysburg. The number is 888-322-8255.

- The ARRL Letter, 8/2/96

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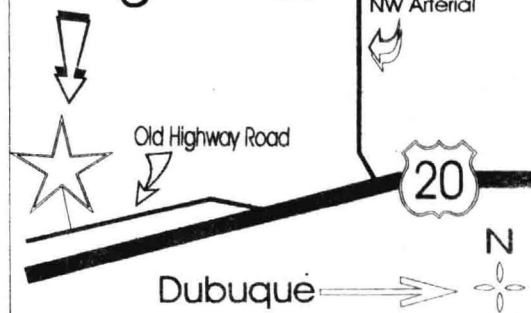
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 - 3... Provide a check or money order made out to ARRL/VEC
- For more information, contact: Carl Clark N0KAX
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Dubuque, Iowa 52001
319-557-9149

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Repeater

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Loren Heber (319) 556-5755 Jerry Lange (319) 556-3050 Jerry Ehlers (319) 583-1016

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Send questions and/or the below form to: G.R.A.R.C., P.O. Box 546, Dubuque, Iowa 52004

Advance ticket / vendor registration form

Company / Name: _____

Address: _____

State: _____ Zip: _____ Phone: _____

Number of tables: _____ X \$8.00 = _____

Number of advance tickets: _____ X \$3.00 = _____

AG backup (limited amount available) _____

The Computer Corner

By Stan Kaplan, WB9RQR

105 Martin Drive
Port Washington, WI 53074-9654
(414) 284-9246

WB9RQR@NORPEYENG3RI.WI.LISA.NA
SKAPLAN@POST.ITS.MCW.EDU

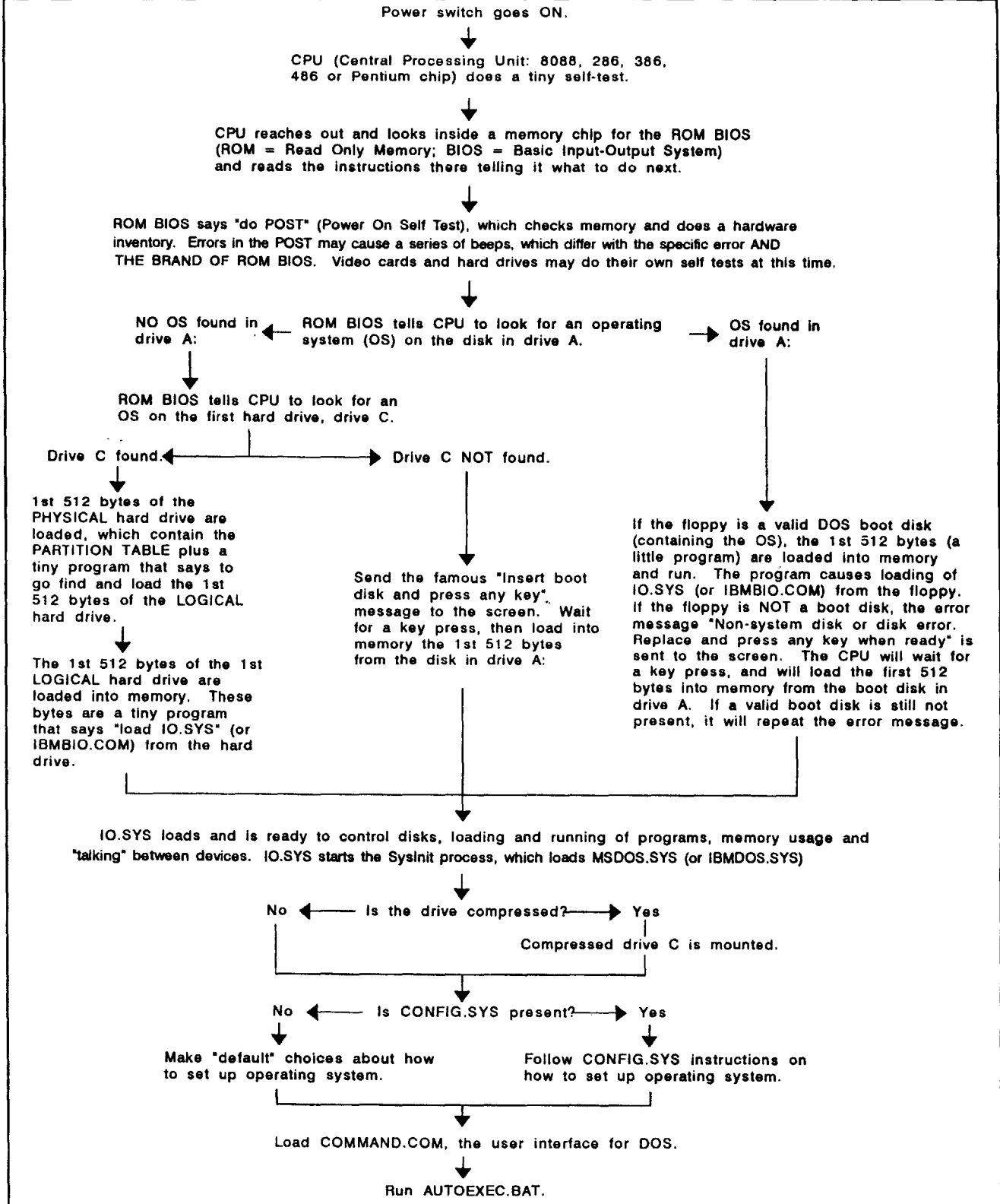
No. 34: THE BOOT PROCESS

Editor's note: This is a "re-run" of Stan's column from our August issue. We omitted an important part, the flow chart at right. We apologize for the error.

This month I would like to express admiration for the software that gets our computers going. Many of the things that happen when we turn on the power are hidden from our view; they happen quickly and in the background and we really are not aware of them. Nevertheless, there is a fairly complicated series of happenings. A couple of years ago while reading, I jotted down some notes and made a flow diagram of the boot process. That is the subject, and most of the substance, of this article.

There are at least 16 major steps a computer must take after the switch is flipped on, before we see the C:\ prompt on the screen. If we divided each step into sub-steps, it would add up to many more, easily filling all the pages of this month's publication. Even more striking is that most of the steps occur well ahead of loading COMMAND.COM, the traffic cop that takes charge of everything, including watching your keyboard to see if you press a key. Note that COMMAND.COM loaded very late in the process, down at the bottom of the flow chart, just after CONFIG.SYS is loaded and before AUTOEXEC.BAT is run.

That all this happens so quickly and efficiently is a tribute to the gals and guys that wrote the program code for the boot process and operating system. They wrote the programs in assembly language, a tedious process using a language that is just one step away from the binary language (zeros and ones) that the computer itself "thinks" with. The computer translates the human-written assembly language instructions to binary, so that it can understand the commands it is being asked to follow. The same translation process occurs with



programs written in PASCAL or C or BASIC. These higher level languages are much easier for us humans to understand and work with, but the programmers who designed and wrote the boot and operating system software chose assembly language because it results in much smaller, efficient programs that run much faster than programs written in higher level languages. Had they chosen BASIC instead, it might take 5 or 6 minutes for the C:\

prompt to appear after turning on the power, instead of a couple of seconds. Think of that next time you flip the switch to the ON position! Happy computing.

Reprinted, by permission, from the ORC Newsletter, Ozaukee Radio Club, P.O. Box 13, Port Washington, Wisconsin 53074 (Skip Douglas, KA9DDN, Editor). □

Encouraging deaf youngsters to get into Amateur Radio

John Rothert, KC4IYO, reports that he is currently working with a group of deaf students in central Florida. The group is called "New Friends" and is a non-profit organization for deaf and hearing impaired children. The function of the organization is to provide an atmosphere where deaf children can meet to socialize and share learning experiences. When one first thinks of Amateur Radio, voice and CW come to mind, but there are many modes that can be used by hearing impaired; radio teletype, Amtor, Packet, Pactor, TV and even CW could be a means of communicating via Amateur Radio for the deaf. Now with digital read out dial displays, tuning to the proper frequency is no problem. John says that he has been involved with the SAREX program in the central Florida since STS-35, and thought this would be a great project to get these kids involved. Last year, the group summated an application to ARRL and the SAREX community to have a scheduled possible Packet contact with one

of the up-coming missions. It is understood that NASA is interested in this project and they may get their chance on a future mission. Some of our student objectives are:

- Learn about Space Science.
- Show how computers can help one communicate.
- Learn about the Internet.
- Spark interest in Amateur Radio.
- Communicate with the Space Shuttle.

The group had its first official workshop with the students Saturday July 27, 1996 at the Sprint General Office Bldg. in Apopka, Florida. Sprint along with the Carl Hill Galloway Chapter of the Telephone Pioneers and Amateur Radio Operators are helping sponsor this event. About twenty-five students attended along with many amateur radio and telephone pioneer volunteers. In this session the students found out what amateur radio is all about. Each student received a packet containing information about Ham Radio from ARRL along with an

Archie Comic Book. A copy of Shuttle Amateur Radio Experiment Bulletin put together by AMSAT and ARRL was also included. Amateur radio operators demonstrated packet/ham radio, how to track the Shuttle and other spacecraft. There was a table set up for students to write letters to the Astronauts and coloring for the younger students. The students also had the opportunity to try some hands on with the packet stations. One of the local clubs, Lake Monrow Amateur Radio Society, has volunteered to give Amateur Radio classes designed for the deaf. A number of students have already signed up for these classes.

John asks that anyone knowing any deaf hams to please let him know how he can get in touch with them. He is also looking for any ideas that may help make Amateur Radio more exciting to these kids.

[ANS thanks John Rothert, KC4IYO, for this interesting and inspiring information.]

- AMSAT News Service

Adams County Amateur Radio Club

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Sunday, June 1, 1997
(Tentative)

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I Pulled the Great Circus Train

Continued from front page

Hartford the train was on a particularly bad section of track and the flat cars started oscillating. It looked like the generator that was tied down on the flat right behind the coach Mark was riding in would bounce right off the flat car. Mark called up to the engine on his railroad handy talkie and told the engineer to "Step it up a bit!" The train picked up a little more speed and the cars settled down to a smooth ride again.

Mark has been railroading for over 25 years, starting as a section laborer on the Rock Island line.

Among his varied duties Mark operated the famous steamer, the C&NW 1385 (which originally pulled the Circus Train in the 1960s), on excursion runs for the Wisconsin & Southern.

One of Mark's scariest moments was when he was working in the Granville area, some kids took a piece of rail left laying along the road bed after some track repair and jammed it between an angle bar and a tie.

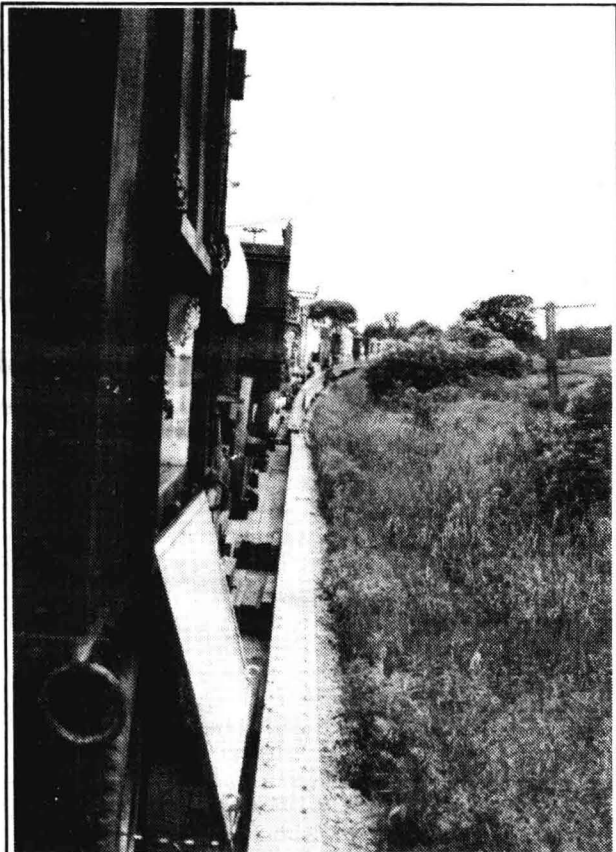
It derailed all three engines, but, fortunately no one was injured.

In Horicon Tuesday morning Mark conducted a tour of the train to the Rock River club of which he is a member.

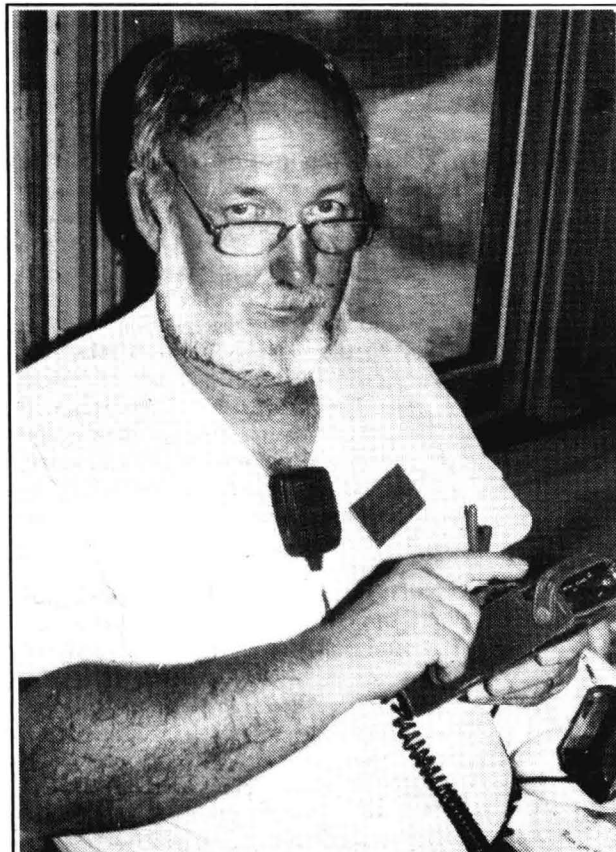
After that he hopped aboard the lead engine and went to work "pulling" The Great Circus Train.

Mark holds an advanced class license and has been interested in ham radio for years before getting licensed in 1990.

Mark's wife Judy, KB9MKK, got her license in 1995. They currently live in Beaver Dam. □



Looking back down the track as the train rounds a curve, a small part of the train can be seen from the observation platform. The wagon in the foreground carries the big generator.



Here's a closeup look at railroad engineer Mark Mullen, N9KQV. Mark rode with the special event station crew on Day One, and drove the train from Horicon to Milwaukee on Day Two. - K9ZZ photos

Wisconsin Amateur Internet Addresses

CALL	NAME	E-MAIL/WEB URL
KC2AK	Stas Wnukowski	Staskc2ak@aol.com http://users.aol.com/staskc2ak aa9bj@excel.net wa9bqw@juno.com kb9byp@execpc.com kf9cs@execpc.com www.execpc.com/~kf9cs menzelw@wctc.net www.wctc.net/~menzelw asplind@dgabby.mfldclin.edu ley@uwstout.edu ke4fe@newnorth.net jkline@centuryinter.net RREGEN@mhsgate.ci.mil.wi.us muzikman@waun.tdsnet.com ETHOLMEN@AOL.COM tcweeden@execpc.com dgrotophorst@globaldialog.com vollrath@execpc.com mwerner@waun.tdsnet.com k9jig@execpc.com nhar@execpc.com mpagel@uwsp.edu n9nqw@kb5ogn.ampr.org k9oqo@aol.com GREISINR@UWGB.EDU wrjones@mail.wiscnet.net wa9pov@execpc.com www.execpc.com/~wa9pov gw9pvd1@win.bright.net grgruetz@vms2.macc.wisc.edu mjfalk@omnifest.uwm.edu http://ods.ods.net/ketchup/index.htm wvincent@execpc.com tcemlepc@waun.tdsnet.com n9unr@execpc.com deanjeski@aol.com wernerg@dgabby.mfldclin.edu bshafer@overlord.edp.net smokesigs@baraboo.com www.danenet.wicip.org/~ares www.execpc.com/~kf9cs/ecr.htm mceraso@mail.edp.net www.edp.net/~mceraso/ECARC.html wa9pov@execpc.com www.execpc.com/~wa9pov/warac.html n9unr@execpc.com www.execpc.com/~wa9pov/war.html
AA9BJ	Tom Hetzel	
WA9BQW	Jule Kish	
KB9BYP	Jeff Schmeichel	
KF9CS	Mark Heimmermann (WAR Secretary)	
KA9D	William G. Menzel	
N9DXZ	Dave Asplin	
NX9F	Jim Ley	
KE4FE	Gary Day	
KA9GCW	Jim Kline	
K9GDF	Rich Regent	
N9GHZ	Mike Schoenfuss	
N9GJJ	Eugene Tetzlaff	
WJ9H	Tom Weeden	
KA9HKL	Duane Grotophorst	
WD9HOD	Ray Vollrath (WAR Editor)	
KB9IQL	Marty Werner	
K9JIG	Denis Christopherson	
WA9JOB	Nels Harvey (WAR Chairman)	
KA9LAQ	Mike Pagel	
N9NQW	Jeff Seefeldt	
K9OQO	Jim Sheetz (WAR Treasurer)	
W9PHF	Ray Greisinger	
N9PHS	Wes Jones	
WA9POV	Dave Knaus	
W9PVD	Gordon Lauder	
WB9QBA	George Gruetzmacher	
AA9RK	Mike Falk	
N9TNW	Bill Vincent	
N9UBQ	Roland Sacho	
N9UNR	Dave Barrow (WAR Freq. Coord.)	
AD9W	Dean Andrewjeski	
WB9WBN	Gerald Werner	
N9YJJ	Bruce Schaffer	
K9ZZ	Jim Romelfanger	
	Dane Co. ARES	
	ECResources, Ltd.	
	Eau Claire Amateur Radio Club	
	West Allis Radio Amateur Club	
	Wisconsin Association of Repeaters	

Updated 08/10/96 - Complete listing

Note that e-mail addresses and Web URLs may be case sensitive.
Send additions and changes to wa9pov@execpc.com.
This list is also available at www.execpc.com/~wa9pov/bsslist.html.

EDITORIAL

The Feingold RFI Bill

Sen. Russ Feingold's bill to permit local regulation of RFI is probably well-meaning and was likely drafted with the best of intentions. However, it appears that the good senator gave no thought to the possible ramifications of such a bill.

It is perfectly possible for a legally-operating CBER - using just his 4-watt radio - to interfere with home electronic equipment in his and in neighbors' homes. It is common knowledge that manufacturers build home electronic equipment as cheaply as possible to keep the cost down, when the simple addition of a buck's worth of parts would prevent most of not nearly all interference to that equipment.

If this bill becomes the law of the land, who will be the "expert enforcers" when a complaint is received? Does anyone with any knowledge about RFI really expect a "regulation-issue" police officer to possess the knowledge to make a legal arrest, after busting in with a search warrant and using training and hundreds, if not thousands, of dollars of RF measuring and testing gear to check RF field strength to provide proof that a CBER is indeed operating above the legal power output limit? The courts are loaded to the hilt right now with both criminal and civil cases. This law would pack 'em up even more with cases that don't even belong there, because of flawed, inept evidence. This proposed law is just plain bad law.

There is an answer, and the good senator certainly must be astute enough to know what it is. Congress has been cutting funding to a lot of federal agencies and bureaus. In so doing, it has rendered the Commission unable to enforce its rules and regulations. Give the

Federal Communications the budget it needs to do its job! That's common sense. And that is what this bill lacks.

Yes, there are CB scofflaws who do operate above their permitted power. But they are from being the majority. There are even unlicensed broadcast stations (which may fall under the Department of Justice's jurisdiction) operating with impunity in the commercial BC bands.

We call on Senator Feingold to immediately withdraw his ill-advised bill, and instead to work with his colleagues to provide the FCC the money it needs. When the Commission is allowed to do its work, it has always done that work very, very well. More laws are unnecessary. The ones already in the federal statute books can work just fine.

And while the good senator is working on this, perhaps he can persuade FCC to require manufacturers to make their consumer electronics equipment proof against most RFI. It's simply not possible to achieve one hundred percent, but 85% is reasonably achievable. And for just a buck or two more per unit. The FCC can test and type accept such equipment. The law should not be reactive, it should be pro-active and directed against the real cause of the RFI problem.

Jim Romelfanger, K9ZZ

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PARTICIPATING CLUBS AND ORGANIZATIONS

Wisconsin Valley Radio Association

Paul Neubauer, N9IOG, Secretary

P.O. Box 363 • Wausau, WI 54402

Six Meter Repeater: 51.74 Input/51.24 Output

MEETING MINUTES August 6, 1996

The meeting was called to order at 7:30 p.m. Present were: N9SDI, N9OWD, N9FOL, N9LIA, Jerome Boettcher, K9MIX, N9NQY, N9PHC, KB9CKR, N9NQQ, KA9DQ, N9TTA, N9SDM, N9SDN, KB9DED, KB9NPN, N9NMH, N9MEA, KB9FRB, KB9DZG, KB9MCZ, N9IAB.

The minutes for June were accepted as published with a motion by K9MIX and second by KB9DED. The treasurer's report was given by N9IAB: we're solvent. The report was accepted after a motion by N9LIA and second by N9NQY.

The status of the 6 meter repeater was discussed. We may be better off replacing it, with some donated equipment, than getting new output tubes for it. N9LIA, N9NMH, and N9MEA will pursue this, including checking on controllers for a new repeater.

So far there has been no response from the Marathon County Public Library about the ARRL book set. WVRA had sent a letter about the book set to the library urging them to purchase it to update their collection in regard to Amateur Radio.

The trailer that was being considered for purchase apparently has been purchased by another party.

The Uninterruptible Power Supply offered for use in emergency government has been picked up. The batteries need to be replaced in the UPS. The UPS would be used to maintain the memory in the radio used in emergency government. The

alternative of obtaining a replacement radio instead of purchasing batteries was brought up.

The meeting adjourned at 8:05 after a motion and second by N9LIA and KB9DED.

Following the meeting, Jerome Boettcher, the Emergency Management Planner for Marathon County talked to the club about how weather nets are called up. He had some concerns about getting people for nets, and the club had concerns about notification when a net might be needed. K9MIX, KB9DED, and N9SDM will be meeting with him to hopefully clear up any misunderstandings. We look forward to hearing from Mr. Boettcher again.

And then Mark Rasmussen, N9MEA, presented a program on grounding in which he showed the ideal grounding arrangement as well as means of protecting equipment from power line and telephone line glitches. He did emphasize, with examples, that even with ideal grounding and all the protective devices lightning can still do damage.

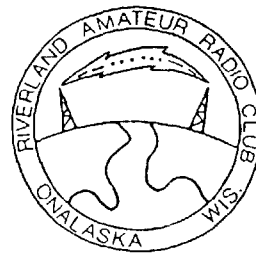
PREVIEWS OF COMING ATTRACTIONS

The program for the September 3 meeting will be about HF operating. Also the WVRA auction is coming up in October. If you have any 'especially good' items, we'd like to hear about them at the September meeting so we can start saving up for the goodies!

Riverland Amateur Radio Club

Dan Abts, N9PZC
Secretary

Club mail address: P.O. Box 621
Onalaska, WI 54650



MEETING MINUTES August 12, 1996

The August 12 meeting of the Riverland Amateur Radio club was called to order at 7:00 p.m. The reading of the minutes of the last meeting was waived and the minutes were approved as appearing in BSSS. Treasurer's report was approved as read.

OLD BUSINESS

Duane, W9HWQ, read a letter from Dan, N9PZC, stating that the 440 repeater and controller had been ordered and is expected to arrive within two weeks. The call sign of the repeater will be W9LZQ.

Kent, W9LZQ, made a motion, seconded by Walt, AA9AW, to accept the offer of Red, WO0W to store the trailers. Motion was approved.

Net Manager: Check-ins have been averaging between 10 and 20 per session.

ARES/SKYWARN: Tom, WB9BJQ, gave a brief report on SKYWARN activity and Bob, N9LZK, reported that equipment at the Red Cross is ready to go.

Property Manager: The rotor has been prepared and the controller for the new repeater has already arrived.

Swapfest: Dick, K0JYB, reported that everything is going OK. It appeared some

vendors may be having some conflicts but nothing is known for sure at this point. An instructor at WWTC has done the fliers for the swapfest as a class project. A suggestion was made to give him a gift certificate in appreciation. Volunteers are needed for setup Friday evening. The possibility of a raffle was discussed. Bill, KE9XQ, asked for VE volunteers for Friday and Saturday sessions.

NEW BUSINESS

Kent suggested an expanded format for next year's Field Day. It could include some of the emergency organizations. Bill, KE9XQ, volunteered to chair the committee. Mark, N9UNW, and Kent, W9LZQ, agreed to work with him.

There was also a short discussion about the method of control for the new repeater and the cost of phone service. Problem of extended area calls was discussed. Bob, N9LZK, made motion that the club procure a phone line and that the club agree to pay the charges for it. Motion was seconded by Marc, N9UNW, and then approved.

The question of publicizing the new repeater's frequency was also briefly discussed.

Meeting adjourned at 8:15.

Taylor County Area Amateur Radio Club

Mike Schoenfuss, N9GHZ, Secretary

P. O. Box 401 • Abbotsford, WI 54405-0401

MEETING ANNOUNCEMENT

The next regular meeting will be held on Thursday, September 5th at 7 p.m. in the Emergency Government meeting room located in the basement of the sheriff's annex to the Taylor County Courthouse, corner of 2nd and Ogden Sts., Medford, WI. Talk-in on the 147.15 Medford repeater (+600 kHz) or 146.52 MHz simplex.

EXCERPTS FROM MINUTES OF JULY 11, 1996 MEETING

Meeting was called to order by President N9GEN. Present were KA9WDX, WD9FWP, AA9LE and N9GEN.

Minutes of the June 6, 1996 meeting were read by President N9GEN, in the absence of Secretary N9GHZ. Treasurer's report was presented by Treasurer KA9WDX. Club membership dues were received from Bruce Salo, KB9HK. A 3-month (quarterly) billing has been received from *Badger State Smoke Signals*, and will need to be paid.

N9GEN reported receiving a letter from Congressman David Obey in reply to his own letter to the congressman concerning the H.R. 3207 bill, "The Amateur Radio Volunteer Services Act of 1996". He passed around the letter for the others present to look at.

Meeting was adjourned.

EXCERPTS FROM MINUTES OF AUGUST 1, 1996 MEETING

Meeting was called to order by President N9GEN. Present were N9GEN, N9GHZ, and AA9LE.

Minutes of the July 11, 1996 meeting were read. There was no treasurer's re-

port, as Treasurer KA9WDX was absent.

N9GHZ reported that he had received the club's new Amateur Radio club license from the FCC. The club's callsign is KB9OBX. The license has been signed and laminated. A photocopy of it will be made and placed in the club's repeater cabinet. N9GHZ will take care of changing the callsign on the repeater. The original license will be kept in the club's records.

N9GHZ passed out some additional, updated information, to those present, regarding the latest threat to the 2-meter and 70-cm Amateur bands from the low-earth orbit satellite industry. Members were encouraged to write to their legislators.

N9GHZ reported that he had received, and paid for, a copy of the current edition of the ARRL publication "Now You're Talking! All You Need To Get Your First Ham Radio License". It was purchased from Rich's Surplus in Stanley. The Amateur Radio license study guide will be donated to the Gilman Public Library in the very near future, in memory of "silent key" Ray Gajda, N9IDW. N9GHZ will also send a photo and appropriate caption to the *Medford Star News* weekly newspaper. N9GHZ asked for a volunteer to accompany him to Gilman when the book is delivered, to take the photograph. AA9LE agreed to assist.

N9GEN inquired as to the status of planning for the upcoming club-sponsored VE Amateur Radio license exam session planned for Medford on October 12th. N9GHZ advised that he would be turning his attention to this matter in the very near future.

N9GHZ passed around a thank-you note for the members present to look at, that he received from Jan Berry, regarding the Amateur Radio communications that



Washington County Amateur Radio Club

Tom Waldschmidt, N9LZW,
Secretary
465 Elder Lane
Allenton, WI 53002-9799



Club Repeater: 146.73 MHz

MEETING MINUTES August 8, 1996

The August 8, 1996 meeting of the Washington County Amateur Radio Club was called to order at 7:38 p.m. by President Walt Gossfeld, N9LLS with 13 members and 1 guest attending.

The minutes of the July membership meeting were read by Secretary Tom, N9LZW. Brian, N9LOO, mentioned that the minutes as published in the *Smoke Signals* had the club's Internet address incorrect. The correct address is:

URL

<<http://www.nconnect.net/~wcarc/>>.

There was a motion by Rip, W9SIZ, seconded by Bill, N9IBU to approve the minutes as corrected. Motion carried.

The treasurer's report was read by Treasurer Dave, KA9RNU. There was a motion by Jim, KB9LTW, seconded by Gary, W9XT, to accept the treasurer's report. Motion carried.

OLD BUSINESS

Rip, W9SIZ, reported that the club's first battery is in need of replacement. Records show that this was purchased May 27, 1991. Prior to Field Day next year,

the club should purchase a replacement battery.

Tom, N9LZW, reported on the Clean Sweep Program which was held by the Washington County Emergency Government office.

Nine club members provided communications support between the two county sites where hazardous household and agricultural products were received for disposal. A special thank you to the following who gave up a bit of their Friday afternoon or Saturday to help: Bill, N9IBU; Dave, KA9RNU; Bob, KG9CW; Tom, N9LZW; Walt, N9LLS; Chris, N9ZES; Rip, W9SIZ; Jim, KB9LTW; and Larry, WB9BVB.

Tom, N9LZW, also reported that he had placed an order for club clothing purchases but had not heard from the company yet.

Walt, N9LLS, announced that he would be assuming the Emergency Coordinator position for Washington County. Walt asked for members to place their phone numbers on a phone tree that he is developing.

Jim, KB9LTW, asked what procedure should be used in case the repeater becomes inoperative. There was a widespread power outage recently during which the repeater was down for one hour. Walt,

Continued on page 11

Continued on page 11



E.C.Q.R.C. eau CLaIRE amateur RADIO CLUB

Carl Searing, W9NW, Secretary
1129 McKinley Rd. • Eau Claire, WI 54703

MEETING MINUTES August 13, 1996

The meeting was opened at 1930 by N9OHE, Kevin Zehr, with 22 members present. The minutes of the last meeting were read and approved. Treasurer Sue Eide, KB9EUP, reported on club finances, particularly as to hamfest receipts and disbursements.

The major part of the meeting was given to a discussion of our recent hamfest, which was considered a success, with a few glitches to be worked out by next year. The new site is excellent, and will be used again for the 1997 hamfest on July 26.

The yellow club shirts seen at the hamfest worn by volunteers are also available to club members at \$6.00 each.

A list of equipment owned by the club (and club-insured) was distributed. Info is to be gathered before the next meeting so that a decision as to disposal or retention of some of the gear may be made.

The club approved the purchase of a new battery for standby power for the .91 repeater to replace the defunct existing battery.

Lunch committee for the September meeting: N9TUA, N0AKC.

Meeting adjourned at 2055 hours.

W9NW, Secretary

Taylor County Area Amateur Radio Club

Continued from page 10

some club members provided for the American Cancer Society walkathon that was held on June 1st in Medford.

It was reported that the club's 147.15 repeater at Medford seems to be working fine at this time, with the exception of a slight hum on the repeater's output, possibly due to a potential power supply problem.

Meeting was adjourned.

CLARK/TAYLOR COUNTY AMATEUR RADIO EMERGENCY SERVICE (ARES) NEWS

Mike Schoenfuss, N9GHZ
ARES Emergency Coordinator

Don't forget to try to check into the weekly ARES net held Wednesdays at 8:30 p.m. on the Medford repeater (147.75/147.15). If the repeater is down or not functioning properly, alternate frequencies, in order, are 147.15 MHz simplex and 146.52 MHz simplex. You're also encouraged to volunteer for net control duty for the net.

Washington County Amateur Radio Club

Continued from page 10

N9LLS, suggested using 146.82 or 146.67 as an alternative. Tom, N9LZW, noted that a call on 146.73 simplex would often get a response since quite a few members are monitoring either on their radios or on scanners. There was some discussion of providing an emergency backup power for the repeater.

There was some discussion about the club's annual picnic which would be held at Riverside Park in West Bend this weekend.

NEW BUSINESS

Walt, N9LLS, explained that we are still in need of a program chairman. After some discussion, Larry said that he will present a slow-scan tv program at the September 12th meeting. Gary, W9XT, said he is planning the program for the October meeting.

There being no further business for the meeting, Bob, KG9CW made a motion to adjourn which was seconded by Larry, WB9BVB. Motion carried. Meeting adjourned at 8:09 P.M.

Respectfully submitted:
Secretary Tom, N9LZW

SEPTEMBER BREAKFAST SCHEDULE

Washington County Amateur Radio Club members meet for breakfast on Saturday mornings. Friends and guests are always welcome to join us. Here is the schedule for the month of September 1996:

Sept 07, 1996 9:00 A.M. The Mineshaft, Hartford

Sept 14, 1996 9:00 A.M. The Slinger Inn, Slinger

Sept 21, 1996 9:00 A.M. Parkside Cafe, Jackson

Sept 28, 1996 9:00 A.M. Corfu Restaurant, Richfield



Notes From the Section Manager

Roy Pedersen, K9FHI • 510 Park Street
Juneau, WI 53039



Kettle Moraine swapfest October 13 Waukesha Expo Center.

The next WNA meeting, picnic, auction will be held in conjunction with the Appleton swapfest; there is a heated shelter available. Listen to the nets for more information.

Sorry to report the following Silent Keys: K9RDI and W9QIX.

Does your radio club get together for breakfast on Saturday morning? Adams County ARC every Saturday 8 a.m. at the Family Affair. RRRC 2nd Saturday each month at Beaver Dam at Rhodes Wooden Wheel.

How is club doing for Field Day next year? Now is the time to get things going. SET is coming up - be ready for it.

Lots of get-togethers for picnics at this time of year, nice to see that.

Nyles Priest has his old call back, W9KUW, good to see that, Nyles.

Friendly Fest November 2 at Waukesha Expo Center.

Mark your calendars June 1, 1997, Springfest, Adams County Fairgrounds.

Things are going pretty good now that I have been through the papers and sorted out.

I still want items from all members for the QST column; please guys and gals, a little of something from each would be appreciated.

Life's heaviest burden is having nothing to carry.

Red Cedar Repeater Association, Inc.

Steve Hart, KA9OMC, Secretary

E616 810th Avenue

Knapp, WI 54749

2-Meter Repeater: 146.01 Input/146.61 Output

Greetings RCRA sponsors and guests.

It was great to see many of you at the Eau Claire Swap Fest. We had good weather and a tremendous turn out. Thanks for stopping by our exhibit to say hello and for purchasing items from our collection. Sorry to have missed getting our notes into to BSSS last month, but farming had to take our time.

KB9MMT, Jeff and Terry at Menomonie, are celebrating the new arrival of daughter Lyssa.

KB9NGD, Peter Johnson, is a new ham in Menomonie. Welcome Peter.

NX9F, Jim, reports that the annual TinMan race will be on Aug. 24th.

KB9NGE, Todd, has moved from Connorsville to south of Menomonie. Todd is looking for a mobile antenna for 2 meters.

Saturday morning coffee has moved to Hardee's across from the mall in North Menomonie at 9 a.m.

KF9CU, Arlene, has a modem for sale. Call her at 235-3182.

KB9MMR, Bill, has moved off campus and recently attended the flyin at Oshkosh. Bill is looking to make contacts on 6 meters.

N9TTV, Glenn, attended the Iola car show and reports over 120,000 people were in attendance with a show of about 2,200 cars and over 3000 vendors.

N9GQU, Mike, and brother Dan, N9KOS, will share the same graduation date next spring.

KA9WBC, Pauline, and husband Chuck are looking to retire in the Knapp hills.

W9VAJ, Jim, has taken his father's call of W9AVM.

N9XGU, Erin, has new employment at DUSO dispatch.

KB9JGZ, Doug and wife KB9MAU, Judy, have moved to Cedar Falls, WI.

KB9MMT, Jeff, reports that over a 100 checkins have been logged into the RCRA web page guest book.

The next gathering of RCRA and sponsors will be at our new location at Peppermill TOO, 1414 9th St. in the L Mart shopping complex. Meeting time is 7:30 p.m. and the date is Sept. 24th. Remember that we will not be at the mall in North Menomonie due to the closing of the restaurant there. Take highway 12 to downtown, then 9th St. south. See you there, and bring something to share about radio and of your summer.

73.

Steve Hart, KA9OMC
RCRA Secretary/Treasurer

FOR SALE: RCRA consigned Kenwood TS700A 2-meter all-mode transceiver. Price is \$250. Call (715) 665-2374.

The Racine Megacycle Club



Club Station W9UDU • Racine, WI

ARRL Affiliated

Providing Communications for American Red Cross and ARES

Alex Voss, N9RGX, Secretary

c/o RMC • P. O. Box 3 • Racine, WI 53401-0003



MEETING MINUTES MONDAY, AUGUST 12, 1996

The meeting was called to order by Lee, N9VNU at 7:30 p.m. local time. Those present were asked to introduce themselves with name and call.

The Treasurer's report was accepted as read.

The Secretary's report was accepted as printed in the *Badger State Smoke Signals*.

OLD BUSINESS

Lee, N9VNU, said that the final Field

Day score was in; 2,824 points. He also said that the new antennas we used at Field Day were going up on the Red Cross building.

Dave, WB9USI, said that he did not win last Fox Hunt. Dennis, WB9SVM and Dave, N9DLZ, were the first to find the Fox and will be the fox on this Friday.

Bill, W9OVZ, gave a report on the condition of the generator. He said he finally got a look at the trailer mounted generator and that he gave Alan, N9ZWJ the numbers. He started tearing it down

Please turn to page 12

Ham Calendar 1996 Courtesy Racine Megacycle Club

SEPTEMBER

Sun	1	Kenosha Ham Breakfast
Sat	7	Testing Racine
Mon	9	RMC Meeting
Fri	13	RMC Fox Hunt
Fri	13	through
Sun	15	Hamfest Peoria
Sat	14	VHF QSO Party
Sun	15	VHF QSO Party
Sun	16	QCWA #162 Business Meeting
Sat	21	Amateur Radio Awareness
Sat	21	and
Sun	22	Hamfest Grayslake
Sun	22	Hamfest Madison
Sat	21	through
Sun	22	10 GHz Contest
Sun	29	and
Mon	30	Tennessee QSO Party

OCTOBER

Sat	5	Testing Racine
Sun	6	Kenosha Ham Breakfast
Fri	11	RMC Fox Hunt
Sun	13	Hamfest Waukesha (KMRA)
Mon	14	RMC Meeting
Sat	19	BSA Jamboree on the Air
Sun	20	BSA Jamboree on the Air

Sat	19	Simulated Emergency Test
Sun	20	Simulated Emergency Test
Sun	20	QCWA #162 Election
Tue	29	Lakeshore Meeting

NOVEMBER

Sat	2	Testing Racine
Sat	2	Sweepstakes - CW
Sun	3	Kenosha Ham Breakfast
Fri	8	RMC Fox Hunt
Mon	11	RMC Meeting
Sat	16	through
Mon	18	Sweepstakes - Phone
Mon	18	QCWA #162 Business Meeting

DECEMBER

Sun	1	Kenosha Ham Breakfast
Fri	6	RMC Fox Hunt
Fri	6	through
Sun	8	160-Meter Contest
Sat	7	Testing Racine
Sun	8	QCWA #162 Christmas Meeting
Mon	9	RMC Christmas Meeting
Sat	14	10-Meter Contest
Tue	31	Straight Key Night

Racine Megacycle Club

Continued from page 11

and got the idler arm off -- the bearings are made in the U.S.A. so we should be able to replace them. He did not yet take the water pump apart. He plans to take everything in the front end apart, the radiator, water pump and replace them along with the hoses and thermometer. He hopes to be finished with it by the next meeting. Fern, W9LCJ, said she may have a manual for a similar generator.

NEW BUSINESS

Pete, KB9LXM, said that he thought there should be new membership packages to hand to new hams in the area who join the club.

Alex, N9RGX, brought up that Saturday, September, 21st is Amateur Radio

Awareness Day and that the club should have some type of demonstration open to the public, possibly in Regency Mall.

ANNOUNCEMENTS

The Royal Caribbean Cruise Line has extended our initial booking time into August. If you are interested in a Southern Caribbean cruise November 8, 1997. Cheryl, WS9P down payment \$250.00 per person August 23, 1996. Mail it to her at Cruise Commanders.

We still have Trolley Ride tickets available for our Christmas meeting. \$11.00 per person all you can eat (in 45 minutes) and then we will go see the Christmas Lights. The tickets will be for Racine Megacycle Club members only there are still 45 seats available.

The meeting was adjourned at 8:32 p.m. local time.

Respectfully Submitted:
Alexander Voss, N9RGX
Secretary, RMC

You are invited to attend Racine and Kenosha ham radio meetings

RACINE MEGACYCLE CLUB W9UDU

Second Monday of each month at 7:30 PM at American Red Cross Bldg.

4521 Taylor Avenue, Racine, Wisconsin

For more information send an SASE to

RMC, P.O. Box 3, RACINE, WI 53401-0003

or contact Alex, N9RGX @ K9RRS #SEWI.EN62CR.WI.USA.NOAM

Talk-in 147.270 + or 442.000 + (127.3 PL)

LAKESHORE REPEATER ASSN. W9UDU/R 147.270 +

Quarterly meetings on Tuesdays at 7:30 PM

at American Red Cross Bldg., 4521 Taylor Avenue

Racine, Wisconsin

Contact Dan, KA9OIL @ K9RRS #SEWI.EN62CR.WI.USA.NOAM

TALK-IN 147.270 + or 442.000 + (127.3 PL)

KENOSHA HAM BREAKFAST

First Sunday of each month at 7:30 AM

at Southport Restaurant, 4600 75th Street

Kenosha, Wisconsin

Contact Ray, WB9LST @ K9RRS #SEWI.EN62CR.WI.USA.NOAM

TALK-IN 147.270 +

KENOSHA EXPLORER SCOUT POST 424 KB9KUT

Southport Amateur Radio Klub (SPARK) KB9KUU

Mondays at 7:00 PM at Local 72 U.A.W. (in back bldg.)

3615 Washington Road, Kenosha, Wisconsin

Contact Mike, N9XSG @ K9RRS #SEWI.EN62CR.WI.USA.NOAM

TalkK-in 147.270 +

PACKET USER'S GROUP

Contact Bruce, K9RRS @ K9RRS #SEWI.EN62CR.WI.USA.NOAM

RMC SPONSORED 2-METER HIDDEN TRANSMITTER HUNTS

Every 4th Friday at 7:00 PM.

Location varies anywhere in Racine or Kenosha Counties east of Hwy 45.

Frequency will be given at the start point.

Send an SASE to Fox Hunt Info, c/o RMC, P.O. Box 3, Racine, WI 53401-0003

or contact Dan, KA9OIL @ K9RRS #SEWI.EN62CR.WI.USA.NOAM

Talkin 147.270 +

RACINE/KENOSHA AREA ARRL VOLUNTEER EXAMINERS

Walk-ins are permitted

First Saturday of each month (except January, July and August)

9:00-11:00 AM at American Red Cross Bldg., 4521 Taylor Avenue, Racine, WI

Inquiries & registration send SASE to: William Firchow, Jr., NW9P

1912 27th Street, Kenosha, WI 53140

Talkin 147.270 + or 442.000 + (127.3 PL)

RMC SPONSORED ANNUAL RACINE HAMFEST • LAST WEEKEND IN JULY

South Hills Country Club, 3047 Hwy. 41, Franksville (visible from I-94)

For more information send an sase to: Racine Hamfest, c/o RMC, P.O. Box 3, Racine, WI 53401-0003

or contact Dave, AA9HL @ K9RRS #SEWI.EN62CR.WI.USA.NOAM

Talkin 147.270 + or 442.000 + (127.3 PL)

RACINE HAMS MEET FOR BREAKFAST EVERY MONDAY, WEDNESDAY AND FRIDAY AT

8:00 AM AT REFLECTIONS FAMILY RESTAURANT

2913 Taylor Avenue, Racine, Wisconsin

Talkin 147.270 + or 442.000 + (127.3 PL)

Saturday breakfasts at 8:00 AM

Athens (Restaurant), 2100 Douglas Avenue, Racine, Wisconsin

Talkin 147.270 + or 442.000 + (127.3 PL)

Tuesday-Thursday Breakfasts

Location varies

Contact Rick, N9UBO @ K9RRS.#SEWI.EN62CR.WI.USA.NOAM

Talkin 147.270 + or 442.000 + (127.3 PL).270 + MHz

Quarter Century Wireless Association Southeastern Wisconsin Chapter 162

Larry McCalvy, WA9JMO
5400 Six Mile Road
Racine, WI 53402



The third Sunday in August developed into a breath-taking picture perfect picnic outing that thirty Chapter participants thoroughly enjoyed. Each brought a dish to pass, their own meat to grill, the Chapter supplied the soda and watermelon; and bi-colored roasted corn complimented the meal. Only eleven months till next year's gala event.

A short business meeting concluded the picnic with the following highlights noted: Our Chapter will again participated in the North American Field Day, the fourth weekend in June; a nominating committee was formed, four director positions are available for the October annual meeting election; the International QCWA election has been completed with

3465 ballots cast. There were 104 invalid election cards. Group pictures of the Ballot-Counting-Gang were taken and should hopefully appear in the next issue of the QCWA Journal.

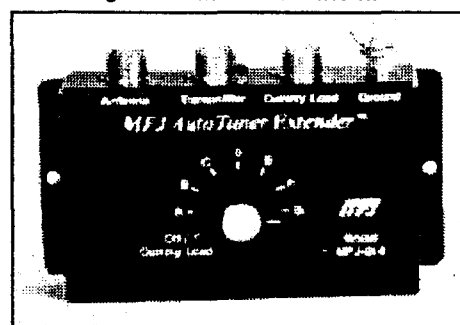
Our September meeting is scheduled for Monday, the 16th at the South Port Restaurant, 4659 - 75th (Hwy 50 and 47th Avenue) Kenosha at 7:30 p.m. in the back room.

The Chapter is looking for a restaurant with meeting room to host our annual election social. If you have a suggestion, contact Larry, WA9JMO, for locations in the Racine area or Al, W9HR, for the Kenosha area.

73,
Larry McCalvy, WA9JMO

NEW PRODUCTS

MFJ-914 AutoTunerExtender™



The MFJ-914 AutoTunerExtender™ (just \$59.95) greatly extends your automatic tuner's matching range. Now you can match nearly any antenna automatically!

The MFJ-914 is a heavy duty, wide range impedance transforming device. It has been carefully designed for the flattest frequency response and the lowest loss.

MFJ's AutoTunerExtender™ will transform your antenna impedance up or down by as much as ten times! MFJ-914 puts nearly any antenna into the matching range of your automatic tuner. You can extend your power range by transforming your antenna impedance so your tuner can be used in a higher power Low-Q mode. MFJ-914 can also greatly extend manual antenna tuners.

MFJ-914 can be used with any transceiver from 160 through ten meters at up to 300 watts. The MFJ-914 connects be-

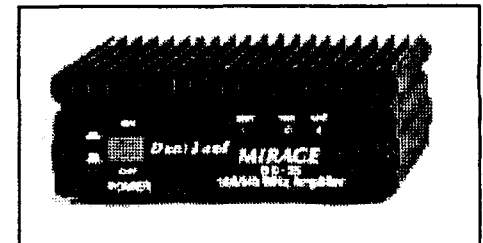
tween your transmitter and antenna with supplied SO-239 connectors. It's extremely easy to use. You bypass your transmitter's auto tuner and then adjust the knobs on the MFJ-914. There is a Off/Dummy Load position on the Extender to help protect your transceiver by connecting it to an external dummy load and providing ground to your antenna.

MFJ-914 AutoTunerExtender™ comes with MFJ's now famous "NO MATTER WHAT" one year unconditional warranty. Technical assistance is also available by calling 1-800-6478324 (TECH).

For more information or to order, contact any MFJ dealer or MFJ Enterprises, Inc., P.O. Box 494, Mississippi State, MS 39762 or call 601-323-5869, fax 601-323-6551, or order tollfree 1 -800-647- 1800.

MFJ news release

MIRAGE MD-35 DUAL-BAND 2M/70cm POWER AMPLIFIER



Get 50% more power on two meters and 75% more on 440 MHz than any nearest competition--for only \$199! That's \$60 less than their list price!

Boost your dual band handheld to 45 watts on 2 meters or 35 watts on 440 MHz for only \$199!

Continued on page 13

FCC issued callsign update

The following is a list of the FCC's most recently issued call signs as of August 1.

District	Group A Extra	Group B Advanced	Group C Tech/Gen	Group D Novice
0	AB0CL	KI0DX	++	KB0YDQ
1	AA1QJ	KE1FS	N1XSM	KB1BYX
2	AB2BV	KG2HV	++	KB2ZOZ
3	AA3OR	KE3XD	N3XXK	KB3BPN
4	AE4WV	KT4UJ	++	KF4LDT
5	AC5JD	KM5CH	++	KC5VOO
6	AC6VW	KQ6IB	++	KF6FLG
7	AB7RW	KJ7ZS	++	KC7SEA
8	AA8XS	KG8YE	++	KC8ENT
9	AA9TB	KG9HP	++	KB9OEY
N. Mariana Is	NH0A	AH0AW	KH0FA	WH0ABF
Guam	WH2W	AH2DB	KH2QT	WH2ANR
Johnston	++	++	++	++
Midway	++	++	++	++
Hawaii	++	AH6OT	++	WH6DCN
Kure	++	++	++	++
Amer. Samoa	AH8O	AH8AH	KH8DA	WH8ABF
Wake	++	++	++	++
Alaska	++	AL7QQ	KL0AH	WL7CTW
Virgin Is	WP2X	KP2CJ	NP2JK	WP2AIE
Puerto Rico	KP3D	KP3AG	NP3EG	WP4NMH

++ All callsigns in this group have been issued in this area. Newly issued callsigns for these groups/areas are assigned from the next lower group.

ARRL Bulletin ARLB053, 8/19/96

Vanity filing Gate 2 opens September 23, 1996

The FCC has announced that vanity call sign filing Gate 2 will open September 23. Under Gate 2, Amateur Extra class licensees may request a vanity call sign on or after that date. File requests on FCC Form 610V.

Legibility is critical! If your application is not legible, you could experience a delay in processing, lose the opportunity to obtain a requested call sign or even obtain a call sign different from what you want.

Under Gate 2, you must hold an unexpired Amateur Extra class operator/primary station license to request a vanity call sign for your primary station. To request a vanity call sign for a club station under Gate 2, you must also hold an unexpired club station license listing you as the license trustee. Applicants should refer to the licensee database to verify that a requested call sign is not already assigned. A call sign is normally assignable two years following license expiration, surrender, revocation, set aside, cancellation, void ab initio, or death of the grantee.

Using Form 610V, provide a list of up to 25 call signs in the order of preference. The first assignable call sign on the list will be assigned to your station. Remember: When requesting a call sign under Gate 2 for your primary or club station, the call sign must have been unassigned for at least two years. As an Amateur Extra class operator, you may request a call sign from any group, A, B, C or D.

Any call sign requested must be one designated for the region of your mailing address, as follows:

- One of the contiguous 48 states: Regions 1 to 10.
- Alaska: Regions 1 to 11.
- American Samoa: Regions 1 to 10, or Region 13 having numeral 8.
- Commonwealth of Northern Mariana Islands: Regions 1 to 10, or Region 13 having numeral 0.
- Guam: Regions 1 to 10, or Region 13 having numeral 2.
- Hawaii: Regions 1 to 10, or Region 13 having numeral 6 or 7.
- Puerto Rico: Regions 1 to 10, or Region 12 having numeral 3 or 4.
- Virgin Islands: Regions 1 to 10, or Region 12 having numeral 2.

For explanations of Groups A, B, C and D and the geographic Regions, see Fact Sheet PR5000 Number 206-S, Amateur Station Sequential Call Sign System (or see The ARRL Letter Electronic Update, August 16, 1996, available on the ARRLWeb at <http://www.arrl.org/>). For more information on the vanity call sign program, see Fact Sheet PR5000 Number 206-V Amateur Station Vanity Call Sign System.

A \$30 fee is required with your FCC Form 610V application. Payment of fees may be made by check (payable to FCC), bank draft, money order or credit card. If paying by credit card, you must also complete and submit FCC Form 159 with your FCC Form 610V. Do not send cash. Send your application package to: Federal Communications Commission, Amateur Vanity Call Sign Request, PO Box 358924, Pittsburgh, PA 15251-5924.

If you do not qualify under the above eligibility standards, your application will be dismissed. For further information, contact the Consumer Assistance Branch at 800-322-1117.

Advanced, General, Technician Plus, Technician, and Novice class operators are not yet eligible to request by list. Advanced class operators will be eligible at Gate 3. Others will be eligible at Gate 4.

A separate Public Notice will be released providing guidelines for the implementation of electronic filing procedures for FCC Form 610V.

- The ARRL Letter, 8/23/96

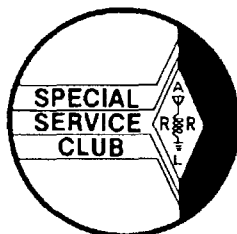
Mancorad Radio Club

John Meyer, N29Z, Secretary

P.O. Box 204 • Manitowoc, WI
54221-0204

2-Meter Repeater: 146.01 Input/146.61 Output

The ManCoRad club did not meet during the summer. The next general meeting will be September 11.



SHEBOYGAN County Amateur Radio Club

Chris Jacobs, N9VKC, Secretary
W4065 Dekker Rd., Waldo, WI 53093

The August meeting was called to order by President Penny Ten Pas, N9TCF.

For a program we had Shawn and Michelle Metzner from the Independent Search and Rescue Canine Team located in the Cedar Grove area. The program was to inform us on how they use dogs to locate missing persons and to see if any Amateur Radio operators would be interested in participating with them in training to help with communications. If you would like to help out please call 414-564-2700. The 24 hour dipatch number is 414-848-0323 (pager) They are non profit and could use volunteers.

For the September meeting we will be

having a Steak Fry at the Pine Club in Sheboygan. Please RSVP to Jim Daniels 458-5259; if answering machine please leave your name and number attending. Remember that this is the 10th of September at 6p.m.

September 14th is the Old Plank Trail Ride from Sheboygan to Plymouth. Art Pahr, K9XJ, will be coordinating that event. We need your participation to make things go smoothly. Thank you.

Official Club Wear is now available. Hats \$5, Shirts \$17, Jackets \$38, Sweat-shirts \$16. Please see Gene, N9WSJ

Hope to see you all at the September meeting.

Japan's JAS-2 ham radio satellite in orbit

JAS-2, the first Amateur Radio satellite launched in 1996, is in orbit. Early Saturday morning, August 17 (UTC), an H-2 rocket blasted off from Japan's Tanegashima Island space center carrying the JAS-2 Amateur Radio satellite. The satellite was successfully deployed in orbit 38 minutes later.

JAS-2 is similar to OSCAR 20, although it offers some interesting twists. As soon as testing is completed and the satellite is open for general use (approximately three days), hams will have access to an easy-to-use packet BBS. Unlike most digital satellites which function as file servers and require specialized ground station software, JAS-2 provides a BBS that operates much like a terrestrial system. The only software required is a terminal program to "talk" to your TNC. Connecting to the BBS is as simple as sending a connect request to 8J1JCS.

Hams who own PSK TNCs can connect to JAS-2 at 1200 baud. But unlike OSCAR 20, JAS-2 can handle 9600-baud FM FSK as well.

A digital voice-storage unit (called the "Digitalker") will be used to transmit announcements, bulletins on the condition of the satellite and so on. It's similar to the unit presently being heard from the Mir space station.

JAS-2 also features a linear transponder for SSB and CW communication. At this time there has been no word from the Japan Amateur Radio League concerning an operating schedule for the transponder vs the BBS. The satellite has also not yet received its OSCAR designation.

Congratulations to JARL and JAMSAT on the successful launch of JAS-2. And many thanks to Kazu Sakamoto, J1WTK, and Fujio Yamashita, JS1UKR, for keeping ARRL HQ informed throughout the project.

JAS-2 Frequencies

Uplink (MHz)	Downlink (MHz)	Mode
145.85 145.89 145.91	435.910	1200-baud PSK
145.87	435.910	9600-baud FM FSK
--	435.795	CW telemetry (12 WPM)
--	435.910	Digitalker
145.90--146.00	435.80--435.90	Analog linear transponder (SSB and CW)

- ARRL Bulletin ARLS011, 8/17/96

New Products

Continued from page 12

Do you want more power for your dual band handheld? Mirage Communications Equipment, home of the *World's Most Rugged VHF/UHF Amplifiers* has a superb dual band amplifier capable of boosting your power to new horizons. The Mirage BD-35 features auto band selection, single connector for dual band radios/antennas, full duplex operation, reverse polarity protection and much, much more!

For just \$199 suggested retail you get 45 watts capability on 2 meters and 35 watts capability on 440 MHz. You also get a FREE mobile mounting bracket! Measuring in at just 5" x 3/4" x 5", this little amplifier works with all FM handhelds. Turn "You're breaking up...can't copy" into "Solid Copy...Go Ahead." Talk further, reach distant repeaters, log onto faraway packet bulletin boards, and show off your new power!

The Mirage BD-35 works with all FM handhelds up to 7 watts. A power curve chart shows typical output power for input power; for example 3 watts in gives you 32 watts out on 440 MHz and 45 watts out on 2 meters. With the Mirage BD-35, you get Mirage's exclusive *FullDuplexAmp™*, which lets you talk on one band and listen on the other band at the same time, just like a telephone conversation! This would require a compatible HT, however.

Mirage BD-35 gives you the most for your money! Here's why: Automatic Frequency band selection, single input connector and single output connector for both bands makes it easy to use with dual band radios and antennas, first class stripline techniques gives you RF performance and reliability that can't be matched! Our custom wrap-around heatsink provides excellent heat distribution and the reverse polarity protection will save your amp if you accidentally connect the power backward.

Mirage includes an automatic RF sense transmit/receive switch, and low input SWR will keep your handheld safe from overheating and make operation extremely easy. a FREE mobile mounting bracket is included, plus you get Mirage's legendary ruggedness and a full one year Mirage warranty.

Add this Mirage MD-35 to your dual band radio and experience NEW power!

Call your dealer for your best price or call Mirage Communications at 1-800-647-1800 to find a dealer nearest you.

Mirage news release

MFJ-1729 DUAL BAND MAGNETIC MOUNT ANTENNA

MFJ Enterprises, Inc. is proud to announce the Most Powerful dual band magnet mount mobile antenna in Ham Radio .. MFJ-1729, only \$29.95!

MFJ-1729 *Super*Gain™* gives you an outstanding 6.3 dB on 440 MHz and 2.6 dB on 2 Meters. Low SWR on both bands lets you operate your rig and deliver full power safely.

It's the perfect choice for dual band mobiles and handhelds. It's MFJ's exclusive 29 3/4 inch stainless steel *SlimLineRadiator™* that minimizes wind vibration for less SWR flutter.

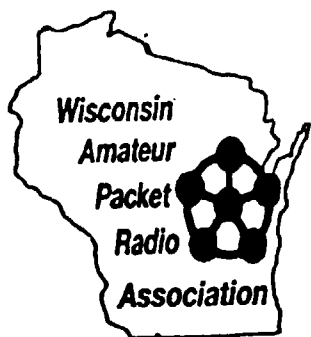
You'll get longer range and much better readability out of the MFJ-1729 *Super*Gain™* because of MFJ's exclusive stylish whip. It's an attractive (cellular looking) black stainless steel whip that screws onto an attractive black base. The base has a protective outer pad to prevent scratching of your automobile.

MFJ also gives you 12 feet of coax with a PL-259 coax connector and a FREE BNC handheld adapter. The MFJ-1729 *Super*Gain™* Magnet Mount Antenna handles 300 watts PEP.

The MFJ- 1729 comes with MFJ's now famous "NO MATTER WHAT" one year unconditional warranty. MFJ will repair or replace your antenna (at our option) for one complete year.

For more information, contact any MFJ dealer, or MFJ Enterprises, Inc., P.O. Box 494, Miss. St. MS 39762 or call 601-323-5869, Fax 601-323-6551, or order TOLL-FREE 1-800-647-1800.

MFJ news release



THE WISCONSIN PACKETEER

Wisconsin Amateur Packet Radio Association
Bob Gedemer, KA9JAC
609 Wilson Street • Neenah, WI 54956

Andy Nemec, KB9ALN, Editor • 720 N. Broadway (Upper West) • Green Bay, WI 54303

WAPR News - September, 1996

by Andy Nemec, KB9ALN

Hello again. The Packers are back in the game, the temperature is starting to lower, and the kids are back in school. Yes, we start our 9 months of "Good Sledding" here in Wisconsin very soon!

No sooner than "Using the Wisconsin Network - Part 18" hit print last month did I get a reply to my rhetorical question involving the Kantronics "Wild Node". Joel, N9BQM was kind enough to tell me that when a node is a "Wild Node", it uses a number of Secondary Station ID's. This allows more than one station to use the node at the same time. Kind of handy when one is not able to reach a network node directly. Thanks for the info, Joel. I am saved from being flogged for not knowing the answer to this, I do not own a Kantronics TNC. Joel does, and did mail me with the answer to this curious question.

In other news, the link from the Fox Valley to Wittenburg is once again strong. You might remember from last month that the #446BC node in Black Creek was being installed. Well, the radio gods were not kind to Al, KB9BYQ and Denny, K9AEG. Seems that at nearly the same time they lost Transmit/Receive relays on backbone radios at Black Creek and Wittenburg. They have been replaced, and all is well now.

Next month I will have a little more news on the status of backbone expansion to the northwest. My current information is that one node site is still waiting approval. Hope to have more next month.

Which brings us to another subject, that of News. Do you have some? Is there something that you would like to share with the rest of the packet radio readership in "The Wisconsin Packeteer"? Feel free to mail me via packet or regular U.S. Mail. My packet address is KB9ALN@KB9ALN.#GRB.WI.USA.NA. My postal address appears at the top of the page.

That is all I have for now, except to once again remind folks to seriously consider joining WAPR. You still get a real good deal on a good organization. Not to mention the option of subscribing to the Badger State Smoke Signals at a reduced rate. You'll find an application on this page.

Until next month, 73 from Andy.

Using the Wisconsin Network

by Andy Nemec, KB9ALN

Did you know that a distant BBS takes Requests? Most BBS's can furnish you with a variety of information, all you have to do is ask for it. Best of all, you don't even have to navigate the network to do it. It can all be done by packet mail from your local BBS, saving you time and giving you the benefit of a local connection when retrieving files and other information.

There are 3 information servers that most BBS's in Wisconsin have available. You can request the contents of a directory, request a file, and on some BBS's, request a callbook look-up. The reply comes back to you at your local BBS as a mail message.

The REQDIR is a function that will return the contents of a remote BBS's directory. This means that you do not have to connect long-distance to a BBS and go through a long process of manually looking at the directory. It can be done with a simple mail message. All you have to know is the call-sign and heirarchical address of the remote BBS (as well as your own, naturally). Let's say that you want to know what is in the directory of our KA9JAC's BBS in Neenah. Start the message with:

SP REQDIR@KA9JAC.WI.USA.NA@YourBBS

The @YourBBS tells the remote BBS to mail the reply to you at your home BBS. Substitute your actual BBS call-sign with this. The BBS will respond with:

"Enter Title or City, State, and Postal Code:"

Keep this line blank. Simply hit the Enter key on your computer. The BBS will respond with:

"Enter Message (^Z or /EX to End, ^A Aborts)"

Leave this blank by sending a Control-Z (or /EX) to end the message. That will start the process. You will get a message by return mail listing the contents of the directory. I did this with the KA9JAC BBS in Neenah, and my reply looked like this:

***** Main File Directory *****

ALIGN.MFJ 1603 ARES <Dir> PART 2751
CTYHUNT <Dir> DX-NOTES <Dir> DXDATA.A-E <Dir>

DXDATA.F-L	<Dir>	DXDATA.M-R	<Dir>	DXDATA.S-Z	<Dir>
FAIL.386	942	FCC	<Dir>	FIELDLAY	<Dir>
FILE1	846	FREQ-STS.74	2225	FREQCORD.FRM	3832
FREQS	<Dir>	GEOGRAPH	<Dir>	HUMOR	<Dir>
ICOM1.MOD	<Dir>	ICOMSERV	<Dir>	INTERNET.GAT	1351
KDK	<Dir>	KENWOOD1.MOD	<Dir>	KENWOOD2.MOD	<Dir>
KENWOOD3.MOD	<Dir>	KEPS	<Dir>	KNWDSERV	<Dir>
MFJ	<Dir>	MODS	<Dir>	MSYS	<Dir>
NASA.BBS	627	NEWDXA	1148	NODES	<Dir>
PACKET	<Dir>	PACKET.10	408	PACKET.WIS	<Dir>
REQFIL.HLP	602	REQSAT.DOC	1994	SATELLITE	<Dir>
USDATA	<Dir>	VIRUS	4235	WALL.DOC	1792
WAPR	<Dir>	WAPRFREQ.APP	3730	WARNING	881
XMAS	1301				

Along with the list of files, you have a list of subdirectories that also contain files. Yes, you can also send another message and find the contents of those directories, too. The procedure is almost exactly the same as in the first example, except for the title. Let's say that you want to find the contents of the WAPR directory. Use the same format to send a message to REQDIR. When the BBS prompts you for a title, send:

/WAPR

After you get the prompt for the body of the message, just send a Control-Z (or /EX) to close the message. You will get, by return mail, a list of the files in the WAPR subdirectory.

Okay, now you have a list of files in front of you. This is nice if you collect lists of directories, but not much good unless you can get one of these files. Of course, you can. That is what the REQFIL function does. Let's say that you found a file called WAPR-BL.DOC that interests you. This would be a copy of the WAPR By-Laws, and this file can be mailed to you just as your request for the directory listing was.

Using our above example at KA9JAC, you would use this format to send a message:

SP REQFIL@KA9JAC.WI.USA.NA@YourBBS

The BBS responds "Enter Title, or City, State, and Postal Code:" You now send:

WAPR/WAPR-BL.DOC

Notice that we did not include a / in front of

the WAPR. It is not necessary. Just remember that you use the / in front of the directory name to request the contents of a directory, but not when requesting a file. Use a / between the directory name and the actual file name.

The BBS will now ask you for the message. Again, you will leave this blank and simply close the message with a Control-Z or /EX. You will get the file by return mail for you to retrieve at your convenience.

A word of caution is in order, though. Directory listings will show the size of the file that is listed. Keep this in mind when you are retrieving the file. A very large file downloaded during peak hours will almost certainly wreak havoc on your fellow packet operators. If you get a large file returned, take note of the traffic on the frequency and try to avoid congestion.

Download it during off-peak hours to keep your LAN a happy place.

The last nifty feature can help you out with your QSL'ing chores. Some BBS's are equipped with a callbook server, and you can remotely take advantage of this. A message to REQOTH will do the job quite nicely. Just send:

SP REQOTH@RemoteBBS.Address.WI.USA.NA@YourBBS

The BBS responds looking for the title, or City, State and Zip. You simply enter in the call-signs of the stations you wish to look up. Separate each with a space, and due to space limits on the title line, you can't do any more than 5 per REQOTH message. An example:

N9BQM KA9JAC KE9LZ

The BBS will again respond asking you for the body of the message. Once again, leave this blank and close the message with a Control-Z or a /EX. You will get a reply with the callbook information for those call-signs, or a message saying that the call was not found.

Naturally, not all of the BBS's you encounter may have any or all of these features available. If a particular BBS does not have a particular feature enabled, you will receive a reply informing you of this fact.

It's easy enough to use, and just another way you can enjoy Using the Wisconsin Network. 'Till next time, 73 from Andy.

WISCONSIN AMATEUR PACKET RADIO MEMBERSHIP APPLICATION

PLEASE PRINT

NAME: _____ CALL: _____ HOME PHONE: (____) _____

ADDRESS: _____ CITY: _____ STATE: _____ ZIP: _____

HOME BBS: _____ FREQ. _____ (Listing your home BBS is important)
Your HOME BBS should be a full service BBS, not your TNC's mailbox.

MY PACKET STATION OPERATES: _____ DAY _____ NIGHT _____ 24HRS

I OPERATE A: _____ DIGIPEATER WITH ALIAS OF: _____

_____ FULL SERVICE BBS

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_____ YES I want to receive Badger State Smoke Signals and I understand that part of my dues goes to pay this subscription. cost \$20.00

_____ NO I do not wish to receive Badger State Smoke Signals as a part of my WAPR membership. Cost \$15.00

COMPLETE and return this form with your check or money order - \$15.00 membership only or \$20.00 membership and Badger State Smoke Signals. made payable to W.A.P.R. (NOT payable to Bob Gedemer) to:

Bob Gedemer KA9JAC/WAPR
609 Wilson St.
Neenah, WI. 54956-3129

MINNESOTA TEST POINT INFORMATION
From the March 1996 edition of "The Ground Wave", Saint Paul Radio Club.

Saint Paul Radio Club (SPRC)
Contact: Jay Bellows, K0QBE (612) 222-7253
Test Site: St. Paul Technical College
235 Marshall Ave.
St Paul, MN
TESTING: First Saturday of the month, 8:30 a.m.

Anoka Amateur Radio Club (AARC)
Contact: Art Mundy, W0FYX, (612) 571-7441
Test Site: Blaine City Hall
9150 Central Ave NE
Blaine, MN
TESTING: Second Saturday of the month, 9:00 a.m.

Bloomington Amateur Radio Club (BARC)
Contact: Dan Royer, KE0OR (612) 888-9756
Test Site: Creekside Community Center
98th & Penn Avenue S
Bloomington, MN
TESTING: Second Saturday of the month, 9:00 a.m.

Valley Amateur Radio Club (VARC)
Contact: Paul Ramey, W0G0 (612) 432-1640
Test Site: Hayes Community Center
14601 Hayes Road
Apple Valley, MN
TESTING: Second Thursday of the month 7:00 p.m.

W5YI
Contact: Dave Ranney, N0AXL (612) 933-2182
Test Site: Eden Prairie Library
479 Eden Prairie Drive
Eden Prairie, MN
TESTING: Third Tuesday of the month 6:30 p.m.

SE Metro Area Radio Club (SEMARC)
Contact: Dave Harrell, N0IPN (612) 459-8678
Test Site: Cottage Grove fire Station
8641 80th St., S
Cottage Grove, MN
TESTING: Third Saturday of the month, 9:00 a.m.

The above information has been furnished by the various VES. However, it is suggested that you confirm time, date and location BEFORE you make the trip to the test site. Occasionally, a test may be canceled and/or dates and locations changed. A Phone call could save you some grief and a wasted trip.

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Yellow Thunder Amateur Radio Club

WB9FDZ (Original Club Call)
K9ODK (Robert L. Prine Memorial Call)

Raymond J. Matlosz, N9MLZ, Secretary
450 West 2nd Street • Reedsburg, WI 53959



The August 14, 1996 meeting of the Yellow Thunder Amateur Radio Club, Inc. was called to order at 7:32 p.m. by club president Steve Schulze, N9UDO.

The minutes of the last meeting as published in the BSSS were approved. Jim Decker, WB9UQT gave the financial report.

OLD BUSINESS: A lengthy discussion was held concerning the club holding an amateur radio/computer swapfest at the Sauk County Fairgrounds on August 9, 1997. Steve Schulze, N9UDO and Bill Klinkner, N9KXX gave an idea what the costs might be (facility rental, deposit), how many club members would be needed (16-20), and what the club might charge for admission. Members discussed insurance, food, raffles, what might be done with any income earned (repeater, boy scouts).

NEW BUSINESS: Ken Ebner, K9EN asked if the club would be interested in selling Bucky Books as a fundraiser. Members present were not keen on the idea. Bill Klinkner had a list of equipment available for purchase from the estate of L.J. Hemmer.

Buck night "winner" was Marvin Kaiser, who was not present.

Meeting adjourned at 8:50 p.m.

Asking price \$650.00
Larson AD 2/70 Duplexor, \$30.00
Tri Onyx frequency counter TR-1000, 600 MHz, \$75.00
Kantronics KPC-2 TNC with RS-232 cable and mic plug. \$100.00
Astron RS-20 Power supply, \$75.00
Diawa SWR and power meter CN-103L, like new

FOX HUNT! Next meeting will begin at 6:30 p.m. in the parking lot of the Baraboo Civic Center on Thursday September 12, 1996.

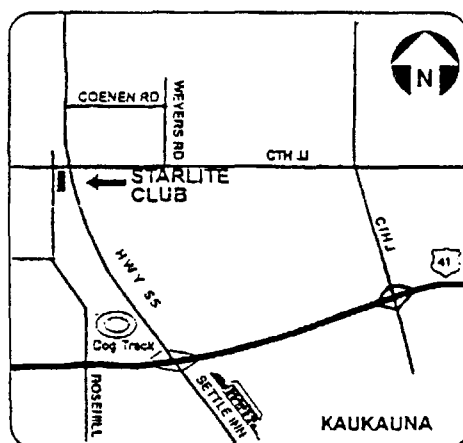
Sincerely,
Raymond J. Matlosz, N9MLZ, Secretary

The following members were present:

Steve Schulze	N9UDO	Baraboo
Art Kleefisch	W9WSS	Baraboo
Jim Decker	WB9UQT	Baraboo
Duane Grotophorst	WA9HKL	Loganville
Bill Klinkner	N9KXX	Sauk City
Anne Klinkner	N9PQL	Sauk City
Raymond Matlosz	N9MLZ	Reedsburg
Bill Hommel	KA9QFJ	Baraboo
Domenic Bianco	KA9QFK	Reedsburg
David Spearing	KB9CSW	Portage
George Gabay	N9QQR	New Lisbon
Ken Ebner	K9EN	Portage
Jim Paul	N9LKY	Baraboo
Ken Johnson	K9DZG	Mazomanie
Wayne Burgess	N9UDX	Madison

condition, \$80.00
VHF base station antenna, Cushcraft CRA-150? New \$91.00, Asking \$50.00
UHF base station antenna, Cushcraft CR-440? New \$72.00, Asking price \$40.00.
Contact Bill Klinkner, N9KXX, (608) 643-6453 (home) or (608) 643-6908 (work).

FOX CITIES AMATEUR RADIO CLUB ANNUAL HAMFEST Kaukauna, WI • November 3, 1996



- \$1000 of prizes
- V.E. Testing
- Talk-in frequency 146.52 simplex or 146.76 repeater
- Food and refreshments
- At the Starlite Club, corners of Hwy. 55 and Cty. Road JJ
- Nearby lodging

AMATEUR RADIO EXAMINATION INFORMATION: Registration starts at 8 a.m. on Sunday, November 3. Registration ends at 9 a.m. and testing begins. No walk-ins after 9 a.m. Bring original license plus two copies. Bring a photo I.D. For more exam info, contact Larry Siebers, KD9IA, phone (414) 757-1167.

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Send check or money order (no cash please), payable to FCARC, 318 E. Brewster St., Appleton WI 54911

The Badger State Smoke Signals Shopper's Guide

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WAUKESHA, WISCONSIN
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Swapfest Information Line: (608) 245-8890

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SWAPFEST 97
July 12, 1997
(Held every July)
American Legion Park
Shepard Avenue • Oak Creek, WI
(414) 762-3235 Extension 58
P. O. Box 102 South Milwaukee, WI 53172

Fox Cities Hamfest
Sunday, November 3, 1996
Starlite Club, Hwy. 55 north of Kaukana

HAMFEST INFO:
Chad Pennings, N9PRC
318 E. Brewster St.
Appleton, WI 54911
(414) 759-0799

EXAM INFO:
Larry Siebers, KD9IA
(414) 759-1167

**Lakeshore Hamfest
and Computer Swapfest**
Manitowoc County Expo
Intersection of Hwys. 42-151 and I-43 on Cty. Hwy. R
Saturday, May 10, 1997
For more information, call:
Glenn, AA9MT: 414-684-7096
Red, N9GHE: 414-684-9097 (nights)
ManCoRad Radio Club • P.O. Box 204 • Manitowoc, WI 54221-0204

HAMFEST & COMPUTER EXPO
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RIVERLAND AMATEUR RADIO CLUB
WESTERN WI ANTIQUÉ RADIO COLLECTORS CLUB
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1520 NAKOMIS AVE., LA CROSSE, WI 54603

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CWRA Swapfest**
8 a.m. to 2 p.m.
UNIVERSITY CENTER, U.W. STEVENS POINT
Info: John Kalina, KA9DJA (715) 342-9714
1240 North Point Drive Stevens Point, WI 54481

Eau Claire Amateur Radio Club
SWAPFEST
Eau Claire County Fairgrounds
Intersection of Highways 93 and I-94
Carol Ceraso • (715) 723-9205 Liz Searing • (715) 834-1303
P.O. Box 1867 • Eau Claire, WI 54701
<http://www.edp.net/~mceraso/hamfest.html>

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Ozaukee Radio Club
**18TH ANNUAL RADIO AND
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8 a.m. to 1 p.m. • Circle B Recreation Center
Intersection of Highway 60 and County I
Exams by Badger Examiners, c/o Gary Sharbuno,
5119 W. Willow Rd., Brown Deer, WI 53222
Swapfest sponsored by the Ozaukee Radio Club
11448 N. Laguna Drive • Mequon, WI 53092

Kettle Moraine Radio Amateurs
SWAPFEST
Sunday, October 13, 1996
Waukesha County Expo Center
Info: KMRA Swapfest P. O. Box 411
Waukesha, WI 53187-0411

Red Cedar Repeater Association, Inc.
AUCTION
February 25, 1997 • 7:00 p.m.
American Legion Post 53 • 634 Water Street
Eau Claire, WI
CONTACT:
Steve Hart, KA9OMC 715-665-2374
E616 810th Ave. Knapp, WI 54749

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